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Semantic Change and Semantic Extension of Tamil Verbs

by
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Deccan College Post-graduate and Research Institute, Pune
(Deemed to-be University)

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The monograph
Semantic Change and Semantic Extension of Tamil Verbs

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Preface

To be honest, the basic work of this monograph was initiated in 1974 when I started working for my Ph.D. degree under the supervision of Peri Baskararao who was a professor at that time in Department of Linguistics, Deccan College Postgraduate and Research Institute, Pune which was affiliated to University of Poona at that time. I worked on "Syntax and semantics of Tamil verbs." It was two pronged: one is to study the argument structure of Tamil verbs based on Fillmore's 'Case grammar' and another is to study the semantics of Tamil verbs based on Nida's "Componential analysis of meaning: an introduction to semantic structure." I tried to find out case frames for the verbs as well as to classify the verbs into certain semantic domains based on Nida's principles. Also I tried to account for the polysemy of each verb. Later on I tried to makes use principles of cognitive semantics and Pustejovsky's generative lexicon principles to explain the polysemy found in verbs. The findings of the above mentioned research works have culminated into the present monograph.

– Rajendran Sankaravelayuthan

Acknowledgement

I would like to express my indebtedness to Prof. Peri Baskarao who advised me to take up “Syntax and Semantic of Tamil verbs” for my doctoral work and “Semantics of Tamil vocabulary” for my post-doctoral work. I owe my indebtedness to Deccan College which gave me facilities to take up both the research works and provide me UGC fellowships for both the research works. I also like to acknowledge Amrita University, Coimbatore which accommodated me as a visiting professor after my retirement from Tamil University, Thanjavur in June 2011. The period over there from July 2011 till now is very fruitful as I could update my research works undertaken in Pune University and Tamil University and publish them as books and research papers. The current work was also undertaken there only. My thanks are due Prof. Soman K.P. of Centre for Excellence in Computational Engineering and Networking (CEN), Amrita University who allowed me to pursue my research work apart from my routine work in projects undertaken by CEN and guiding students in their project works.

My special thanks to Vice-chancellor to Prof. Prasad Joshi, Vice-chancellor, and Deccan College who offered me a special invitation to contribute to the Deccan College Bicentenary Monograph Series.

– Rajendran Sankaravelayuthan

Roman to Tamil conversion

The following table shows the match between the roman scripts and their Tamil equivalents

Vowels in Roman	Vowels in Tamil	Consonants in Roman	Consonants in inTamil
a	அ	k	க்
aa	ஆ	c	ச்
i	இ	T	ட்
ii	ஈ	t	த்
u	உ	p	ப்
uu	ஊ	R	ற்
e	எ	y	ய்
ee	ஏ	r	ர்
ai	ஐ	l	ல்
o	ஒ	v	வ்
oo	ஓ	zh	ழ்
au	ஔ	L	ள்
q	ஃ	ng	ங்
		nj	ஞ்
		N	ண்
		nd	ந்
		m	ம்
		n	ன்
		j	ஜ்
		sh	ஷ்
		h	ஹ்

Expansion of abbreviations used in the glosses

Abbreviations	Expansion
ABL	ablative case
ACC	accusative case
ADJ	adjective
ADJP	adjective participle
ADV	adverb
ADVP	adverbial participle
CON	continuous tense
DAT	dative case
FUT	future tense
GEN	genitive case
GER	gerund
INF	infinitive
LOC	locative case
NEG	negative
Obj	object
PAS	past tense
PRE	present tense
PRECON	present continuous tense
Sub	subject
1P	first person plural
1S	first person singular
2P	second person plural
2S	Second person singular
3EP	third person epicene plural
3FS	third person feminine singular
3HP	third person human plural
3MS	third person masculine singular
3NP	third person neuter plural
3NS	third person neuter singular

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Chapter 1

Introduction

This monograph investigates semantic change and semantic extension of verbs in Tamil. The semantic change and semantic extensions of meaning of verbs are studied from the perspectives of cognitive semantics and generative lexicon. The monograph is organized into six chapters. They are briefly described below.

There are a few earlier researches in Tamil on lexical semantics and semantic change. By chance they are the research works undertaken by Rajendran. "Syntax and semantics of Tamil verbs" is the PhD research work of Rajendran (1978). This work followed the principles of Nida (1975a) expounded in his book entitled "Componential analysis of meaning: an introduction to semantic structures". This work has great relevance to the present research work as Rajendran has classified verbs into certain semantic domains and subdomains based on the principles of componential analysis propounded by Nida (1975a). He has also classified verbs into certain number of semantic domains based on the number and types of arguments taken by the verbs. He has identified the semantic features of verbs to distinguish one verb from the other and also identified common semantic features which can be ascribed to the verbs which belong to a particular semantic domain. The polysemy of each verb is identified and classified based on the semantic parameters. Another important work on lexical semantics by Rajendran is his post-doctoral work on "Semantics of Tamil vocabulary". These works have been culminated into two books entitled "*taRkaalat tamiz coRkaLanjciyam* (Thesaurus for modern Tamil)" which has been written in Tamil and published by Tamil university in 2001 (Rajendran 2001) and '*tamiz min coRkaLanjciyam* (Tamil electronic thesaurus)" written in collaboration with Baskaran and published by Tamil University in 2006 (Rajendran 2006). He has published a book on lexical semantics entitled "*coRkaL: vaazvum varalaaRum* (Words: Life and History)" written in collaboration with Sakthivel. His research papers entitled "Verbs of 'seeing' in Tamil' (Rajendran 1982), "Coming and Going in Tamil" (Rajendran 1983), "Semantic Structure of Directional verbs of movement in Tamil", (Rajendran 2002), "Syntax and semantics of Verbs of Transfer in Tamil" (Rajendran 2002), "Creating generative lexicon from dictionaries" (Rajendran 2003), "Building generative lexicon from MRDs in Tamil" (Rajendran 2010), "Grammaticalization verbs in Tamil" (Rajendran 2018) and "Cognitive extensions of meaning in verbs of movement in Tamil" (Rajendran 2019), (Ontology of Tamil Vocabulary" (Rajendran and Anitha 2019), "WordNet and its dimesions" (Rajendran 2021) have direct or indirect bearing on the present research work. Some of unpublished research manuals uploaded in the websites academia.edu and Research Gate which can be said to be directly or indirectly concerned with the present research

work are "*tamiz peyarc coRkaLin aakkamuRai akaraati*" (Generative lexicon for Tamil nouns)" and "*tamiz vinaicoRkaLin aakkamuRai akaraati* (Generative lexicon for Tamil)".

The present work has its starting point in "Syntax and semantics of Tamil verbs (Rajendran 1978). The verbs of Tamil have been collected and classified based on the principles of componential analysis meaning propounded by Nida (1975). Also the polysemy of the verbs is explained based on the principles explained by Nida in the same book. Attempts have been made to classify the meanings that can be given under particular verbs. The synonymy is explained based on the senses rather than by words. Such classification explained the semantic extension of verbs which can be attributed to various principles such as metaphorical extension, metonymical extension, and analogical extension and so on.

The aim of this research is to find out the magnitude and dimension semantic change and semantic extension of meanings of verbs and to find out the general principles on these processes of dynamics of meaning. The units of meaning can include words, phrases and grammatical units. For example, the verbs in Tamil such as *vaa* 'come', *poo* 'go' have been grammaticalized to function as auxiliary verbs denoting some aspectual meaning (Rajendran 2019). Two theories have been going to be explored to explain the sematic change and sematic extension of verbs: one is cognitive theory of meaning and another is the theory propounded by Pushtejovsky (1995) in his generative lexicon.

Explaining the semantic extension or semantic change of meaning of verbs is undertaken in two ways: one is to classify the verbs into certain semantic domains based on their distinctive semantic features and then explain the polysemy in the members of each domain (Rajendran 1979, 2020); and another is to explain how verbs belonging to a domain move to another domain by cognitive principles of semantic extension.

Dictionaries list words as entries and give different meanings based on their usage and thus function as word information resources. Dictionaries list different meanings of a verb under an entry and try to convince the users that each is a separate meaning by explanation and giving the examples to support their conviction. Thesaurus on the other hand, classifies the words into semantic domains and subdomains and gives word under each domain or subheading. WordNet is a combination of thesaurus and dictionaries. In WordNet, words are grouped into synsets (synonymous sets) and the synonyms are linked by semantic and lexical relations, thus forming a network of words or concepts (each meaning denoted by a word is a concept).

The problem with a dictionary is that in its efforts to account for the different uses of a lexical item or word, it goes on increasing the list of meaning under each word entry. This will cause not only the increase in the size of the dictionary but also the increase in number of volumes of the dictionary. A verb expands its usage quite wider than a noun. The expansion of numbers of senses under each nouns is comparatively less when compared to verbs. The polysemy found in verbs leads to ambiguity which is a serious issue in machine translation. The polysemy found in verbs and the expansion of dictionaries disproportionately due to polysemy needs to be accounted by different means. The expansion of meaning in terms of different senses can be assumed or predicted or expected to some extent. This predictable

expansion of meaning can be explained or put into rules. But the senses assigned to a verb undergo unpredictable mutations which cannot be easily explained. In order to account for the dynamic process of polysemy mainly due to semantic change or meaning expansion, especially in verbs, it is felt that the polysemy needs to be addressed seriously.

The endless list of meanings found in the entries of verbs in a dictionary led to the present study. It is felt that the semantic change or meaning extension need to be explained properly for the verbs to lessen the burden in lexicon. Practically speaking, there is no principal difference between semantic extension and sematic change.

Tamil verbs expand its range of application of meaning or usage of meaning in predictable terms as well as unpredictable terms. For the native speakers of Tamil such expansion of range of application of meaning may not appear strange. But a non-native speaker such extension of change of meaning may appear strange and it may be difficult for them to understand the meaning of a lexical item in unaccustomed contexts.

The expansion or change of meaning of a lexical item will be explicitly revealed if we compare the early dictionaries of Tamil (Tamil Lexicon of Madras University) with the present one (Creas's Modern Tamil Dictionary). It is presumed here in this research that the meaning expansion or change are somewhat predicable and can be explained by cognitive principles or principles of generative lexicon. It is a well-known fact that meaning of a lexical item expands or changes metaphorically, metonymically and analogically. This leads the moving of lexical items belonging to a domain into another domain. This movement is due to the acquiring of new semantic features which are shared with the entity's new place of existence. It is hoped that this can be explained by general principles of semantic expansion or change.

Chapter 2

Semantic change and semantic extension

Semantic extensions in natural language mirror our creative cognitive processes of understanding abstract concepts in terms of concrete ones. The major factors involved in this process are metaphor and metonymy. One of our most remarkable abilities is to understand in a fairly flexible way an enormous range of abstract concepts as well as concrete ones. The ability to understand abstract concepts involves creative cognitive processes in which we metaphorically understand structures in the abstract domain in terms of structures in the more concrete domain (e.g., Lakoff and Johnson 1980; Hopper and Traugott 1993). These processes include metaphor and metonymy, which go beyond the direct mirroring of the external reality in our direct experience of the external world. These creative cognitive processes of understanding abstract concepts in terms of concrete ones serve as the major factors in the semantic extensions or changes in natural language.

2.1. Cognitive semantics

Cognitive semantics is part of the cognitive linguistics movement. Semantics is the study of linguistic meaning. Cognitive semantics holds that language is a part of a more general human cognitive ability, and can therefore only describe the world as people conceive of it (Croft, & Cruse 2004). It is implicit that different linguistic communities conceive of simple things and processes in the world differently (due to different cultures). It is not necessary that there are some difference between a person's conceptual world and the real world (wrong beliefs). The main tenets of cognitive semantics are:

- That grammar manifests a conception of the world held in a culture;
- That knowledge of language is acquired and contextual;
- That the ability to use language draws upon general cognitive resources and not a special language module (Croft & Cruse 2004).

As part of the field of cognitive linguistics, the cognitive semantics approach rejects the traditional separation of linguistics into phonology, morphology, syntax, pragmatics, etc. Instead, it divides semantics into meaning-construction and knowledge representation. Therefore, cognitive semantics studies much of the area traditionally devoted to pragmatics as well as semantics.

The techniques native to cognitive semantics are typically used in lexical studies such as those put forth by Leonard Talmy, George Lakoff, Dirk Geeraerts, and Bruce Wayne Hawkins. Some cognitive semantic frameworks, such as that developed by Talmy, take into account syntactic structures as well. (Wikipedia on 'Cognitive semantics')

As a field, semantics is interested in three big questions: what does it mean for units of language, called lexemes, to have "meaning"? What does it mean for sentences to have meaning? Finally, how is it that meaningful units fit together to compose complete sentences? These are the main points of inquiry behind studies into lexical semantics, structural semantics, and theories of compositionality (respectively). In each category, traditional theories seem to be at odds with those accounts provided by cognitive semanticists.

Classic theories in semantics (in the tradition of Alfred Tarski and Donald Davidson) have inclined to explain the meaning of parts in terms of necessary and sufficient conditions, sentences in terms of truth-conditions, and composition in terms of propositional functions. Each of these positions is tightly related to the others. According to these traditional theories, the meaning of a particular sentence may be understood as the conditions under which the proposition conveyed by the sentence hold true. For instance, the expression "snow is white" is true if and only if snow is, in fact, white. Lexical units can be understood as holding meaning either by virtue of the set of things they may apply to (called the "extension" of the word), or in terms of the common properties that hold between these things (called its "intension"). The intension provides an interlocutor with the necessary and sufficient conditions that let a thing qualify as a member of some lexical unit's extension. Roughly, propositional functions are those abstract instructions that guide the interpreter in taking the free variables in an open sentence and filling them in, resulting in a correct understanding of the sentence as a whole.

Meanwhile, cognitive semantic theories are typically built on the argument that lexical meaning is conceptual. That is, meaning is not necessarily reference to the entity or relation in some real or possible world. Instead, meaning corresponds with a concept held in the mind based on personal understanding. As a result, semantic facts like "All bachelors are unmarried males" are not treated as special facts about our language practices; rather, these facts are not distinct from encyclopaedic knowledge. In treating linguistic knowledge as being a piece with everyday knowledge, the question is raised: how can cognitive semantics explain paradigmatically semantic phenomena, like category structure? Set to the challenge, researchers have drawn upon theories from related fields, like cognitive psychology and cognitive anthropology. One proposal is to treat in order to explain category structure in terms of nodes in a knowledge network. One example of a theory from cognitive science that has made its way into the cognitive semantic mainstream is the theory of prototypes, which cognitive semanticists generally argue is the cause of polysemy.

Cognitive semanticists argue that truth-conditional semantics is unduly limited in its account of full sentence meaning. While they are not on the whole hostile to truth-conditional semantics, they point out that it has limited explanatory power. That is to say, it is limited to indicative sentences, and does not seem to offer any straightforward or intuitive way of treating (say) commands or expressions. By contrast, cognitive semantics seeks to capture the full range of grammatical moods by also making use of the notions of framing and mental spaces.

Another trait of cognitive semantics is the recognition that meaning is not fixed but a matter of construal and conventionalization. The processes of linguistic construal, it is argued, are the same psychological processes involved in the processing of encyclopaedic knowledge and in perception. This view has implications for the problem of compositionality. An account in cognitive semantics called the dynamic construal theory makes the claim that words themselves are without meaning: they have, at best, "default construals," which are really just ways of using words. Along these lines, cognitive semantics argues that compositionality can only be intelligible if pragmatic elements like context and intention are taken into consideration (Croft & Cruse 2004).

Cognitive semantics has sought to challenge traditional theories in two ways: first, by providing an account of the meaning of sentences by going beyond truth-conditional accounts; and second, by attempting to go beyond accounts of word meaning that appeal to necessary and sufficient conditions. It accomplishes both by examining the structure of concepts.

We use language every day without thinking about what we do when we understand what is said or written. But when we listen to two persons conversing in a language that is completely unknown to us, we realize that it is not sufficient to hear what somebody is saying - we must also be able to interpret the speech sounds. But exactly what is the meaning of a word? In philosophy, linguistics and psychology, one finds several theories about what meaning is. One theory that has been dominating for a long time says that the meanings of words are found in the external world. A more recent theory, called cognitive semantics, claims that the meanings of words are located in our heads. As an introduction, we can contrast two general traditions in semantics, one realistic and one cognitive. According to the realistic approach to semantics, the meaning of an expression is something out there in the world. In technical terms, semantics for a language is defined as a mapping from the syntactic structures to things in the world. In philosophical ontological terms, this is thus a realistic theory. However, a realistic theory does not explain how a person can grasp the meanings of different words. Harnad (1987, p. 550) says that

> […] the meanings of elementary symbols must be grounded in perceptual categories. That is, symbols, which are manipulated only on the basis of their form (i.e., syntactically) rather than their "meaning," must be reducible to nonsymbolic, shape-preserving representations.

2.2. Dynamics of meaning

World is full of things and concepts. Language has only limited number of words to express those things and concepts. Language resorts to many mechanisms to overcome this difficulty. It does fundamentally two things to cope up this difficulty; one is by coining new words and another is expanding the range of the meaning of a word. The second mechanism leads to polysemy. Most of the words are polysemous. It is difficult to find out a monosemous word. Polysemy can be attributed to contextual variability of word meaning or extension of meaning due to context. A lexicon focuses on the polysemy which culminates into contextual variability of meaning. At one dimension, the information about words constitutes the lexicon.

Interestingly, when the lexicon has been externalised and organised, we have the dictionary. Indeed, the richer and the more comprehensive the dictionary of a language, the more it has the capacity to express meaning. Recently WordNets have built a full-fledged on-line lexical resource. The theory of generative lexicon tries to find ways to cope up with the enormous proliferation of meaning due to meaning extension and meaning change which culminates into polysemy.

Meaning is not static. It is dynamic and propagates into difference senses due to its use in different contexts. A fundamental problem lexicologists are concerned with is the fact that the number of words at our disposition is limited but that human imagination is virtually unlimited and that the number of things, beings, processes and ideas that can be referred to is endless. There are mainly two strategies to cope with this disproportion: first, we match the concrete referent with a lexicalized meaning of a word and actualize this meaning in the concrete context; second, if the first strategy cannot be applied or risks to fail because there is no lexicalized meaning to cover the actual referent, we must create a lexical innovation as, e.g., a semantic innovation, a new word-formation or idiom or introduce a loan word.

In the first case, the actual context meaning is located inside of the range of an existing semantic invariant: a learned semantic rule is applied to a given context. We can define the criteria for this contextual variation (or "vagueness") and to distinguish it from different senses of one word, i.e. polysemy, and from different words showing an identical signifier, i.e. homonymy. When we decide to use a word although we leave the traditional range of its semantic invariants, we create a semantic innovation. If this innovation is successful, it becomes, in turn, lexicalized as a new invariant of the word in question. The types of polysemy resulting from this diachronic process and the possible semantic relations linking them in synchrony are worth investigating.

2.3. Contextual variability of word meaning

When we try to correlate word with meaning, we enter into a lot of problems. Let us look at the following examples. The interpretation we give to a particular word form can vary greatly from context to context (Cruse, 2000:104).

1. I went to the bank. (ambiguous because of the two readings for the bank: one 'bank of a water body' or 'financial bank')
2.a. The firm built this school. (a building)
2.b. The school won the award last year. (people)
3.a. He was coming down the path to meet me. (perspective)
3.b. I followed a winding path through the woods.
4.a. The child can walk already and she's only 11 months old. (contrasted with standing up unaided, talking, etc.)
4.b. I usually walk to work. (contrasted with driving, going by train, etc.)
5.a. Mary's speech was inaudible.
5.b. Mary's speech was interesting.
6.a. Please put this book back on the shelf. (facets)
6.b. I find this book unreadable.

7.a. John planted five roses.
7.b. John picked five roses.
8.a. John ordered a ham sandwich.
8.b. The ham sandwich wants his coffee now. (metonymy)

We raise the following questions in our mind:

1. Do words typically have multiple meanings?
2. How do we decide what constitutes 'a meaning'?
3. Are there a finite number of meanings?
4. How are meanings related to one another?

The answers for these questions are difficult to arrive at. We shall begin by identifying two properties of variant readings of a word which are relevant to the answers to the above questions. We can first of all ask whether there is a sharp semantic boundary between the two readings; a second question is whether they are mutually exclusive. Both these will be taken as distinctness of two readings.

2.4. Polysemy

Polysemy is the capacity for a word or phrase to have multiple meanings, usually related by contiguity of meaning within a semantic field. It is thus distinct from homonymy-or homophony-which is an accidental similarity between two words (such as *bear the animal*, and the verb to *bear*); while homonymy is often a mere linguistic coincidence, polysemy is not. In deciding between polysemy and homonymy, it might be necessary to look at the history of the word to see if the two meanings are historically related. Dictionary writers list polysemes under the same entry; homonyms are defined separately.

A polyseme is a word or phrase with different, but related senses. Since the test for polysemy is the vague concept of the relatedness, judgments of polysemy can be difficult to make. Because applying pre-existing words to new situations is a natural process of language change, looking at words' etymology is helpful in determining polysemy but not the only solution; as words become lost in etymology, what once was a useful distinction of meaning may no longer be so. Some apparently unrelated words share a common historical origin, however, so etymology is not an infallible test for polysemy, and dictionary writers also often defer to speakers' intuitions to judge polysemy in cases where it contradicts etymology. English has many polysemous words. For example, the verb "to get" can mean "procure" (I'll get the drinks), "become" (she got scared), "understand" (I get it) etc.

2.4.1. Varieties of polysemy

There is by definition a motivated relationship between polysemous senses. There are various ways of classifying the sorts of relation that can hold between polysemous senses. We can distinguish between two types of polysemy: linear and non-linear polysemy (Crues, 2000:111-113).

2.4.1.1. Linear polysemy

Autohyponymy, automeronymy, autosuperordiation and autoholonymy are the different types of linear polysemy.

(1) **Autohyponymy :** Autohyponymy occurs when a word has a default general sense, and a contextually restricted sense which is more specific in that it denotes a sub variety of the general sense. For example, *dog* has a general sense, "member of canine race" as in *Dog and cat owners must register their pets*, and a more specific reading as in *That's not a dog, it's a bitch.*

(2) **Automeronymy:** Automeronymy occurs in a parallel way to autohyponymy, except that the more specific reading denotes subpart rather than a subtype. For example, in the sentence *he painted the window, window* means the whole of window including its frame, the wooden plank, bars, hinges, etc., whereas in the sentence *he came through the window, window* means only the hole like structure of window. Similarly in the sentence *she showed her body, body* denotes the whole of the body, whereas, in the sentence he hurts her body, body denotes a part of the body.

(3) **Autosuperodination :** An example of autosuperodination is the use of man to refer to human race.

(4) **Autoholonymy :** Discriminating automeronymy from autoholonymy is not easy, because often there seem to have different default readings according to the context. For example, in the sentence, *she scratched her body, body* denotes only part of the body, whereas in the sentence, s*he showed her body, body* denotes the whole of the body. Similarly, in the senesce *she scratched her arm, arm* denotes only part of the arm, whereas in the sentence, *she lost her arm in an accident, arm* denotes the whole of arm.

2.4.1.2. Non-linear polysemy

Metaphor and metonymy comes under non-linear polysemy.

Metaphor

Many polysemous senses are clearly related metaphorically. A metaphor is a figure of speech that refers, for rhetorical effect, to one thing by mentioning another thing. It may provide clarity or identify hidden similarities between two ideas. Where a simile compares two items, a metaphor directly equates them, and does not use "like" or "as" as does a simile. Metaphors are sometimes constructed through our common language. They are called conventional metaphors. Calling a person a "night owl" or an "early bird" or saying "life is a journey" are common conventional metaphor examples commonly heard and understood by most of us. Below are some more conventional metaphors we often hear in our daily life:

My brother was boiling mad. (This implies he was too angry.)

The assignment was a breeze. (This implies that the assignment was not difficult.)

It is going to be clear skies from now on. (This implies that clear skies are not a threat and life is going to be without hardships)

The skies of his future began to darken. (Darkness is a threat; therefore, this implies that the coming times are going to be hard for him.)

Her voice is music to his ears. (This implies that her voice makes him feel happy)

Metonymy

Another rich source of poysemous variation is metonymy. Metonymy is a figure of speech in which something is called by a new name that is related in meaning to the original thing or concept. For example, it's common practice to refer to celebrity life and culture in the United States as "Hollywood," as in "Hollywood is obsessed with this new diet." The meaning of this statement is not that the place itself has any obsession, of course, but instead refers to the celebrities and wannabe celebrities who reside there. As noted above, "Hollywood" can act as a metonym for celebrity culture. There are many other place names that act metonymically in the same way, such as "Wall Street" for the financial sector and "Washington" for the United States government. However, there are many more words in common usage that are metonyms. Metonymy can be characterized as figurative use based on association. Here are different types of metonymy based on different types of associations (Pustejovsky, 1995:31). Pustejovsky, (1995:31) calls them as complementary polysemy:

1. Count-mass metonymy
   The lamb is running in the field.
   John ate lamb for breakfast.
2. Container-containee metonymy
   Mary broke the bottle.
   The baby finished the bottle.
3. Figure-ground metonymy
   The widow is rotting.
   Mary crawled through the widow.
4. Product-produced metonymy
   The newspaper fired its editor.
   John spilled coffee on the newspaper.
5. Plant-food metonymy
   Mary ate a fig for lunch.
   Mary watered the figs in the garden.
6. Process-result metonymy
   The company's merger with Honda will begin next fall.
   The merger will produce cars.
7. Place-people metonymy
   John travelled to New York.
   New York kicked the mayor out of office.

Difference between Metonymy and Synecdoche

Metonymy and synecdoche are very similar figures of speech, and some consider synecdoche to be a specific type of metonymy. Synecdoche occurs when the name of a part is used to refer to the whole, such as in "There are hungry mouths to feed." The mouths stand in for the hungry people. The definition of metonymy is more

expansive, including concepts that are merely associated in meaning and not necessarily parts of the original thing or concept.

Metaphor (drawing a similarity between two things) and metonymy (drawing a contiguity between two things) are two fundamental opposite poles along which a discourse with human language is developed. It has been argued that the two poles of similarity and contiguity are fundamental ones along which the human brain is structured; in the study of human language the two poles have been called metaphor and metonymy, while in the study of the unconscious they have been called condensation and displacement. In linguistics, they are connected to the paradigmatic and syntagmatic poles.

In linear or vertical polysemy, one sense of a word is a subset of the other. These are examples of hyponymy and hypernymy, and are sometimes called autohyponyms. (Koskela 2005). For example, 'dog' can be used for 'male dog'. Alan Cruse identifies four types of linear polysemy (Cruse 2000):

- autohyponymy, where the basic sense leads to a specialised sense (from "drinking (anything)" to "drinking (alcohol)")
- automeronymy, where the basic sense leads to a subpart sense (from "door (whole structure)" to "door (panel)")
- autohyperonymy or autosuperordination, where the basic sense leads to a wider sense (from "(female) cow" to "cow (of either sex)")
- autoholonymy, where the basic sense leads to a larger sense (from "leg (thigh and calf)" to "leg (thigh, calf, knee and foot)")

In non-linear polysemy, the original sense of a word is used figuratively to provide a different way of looking at the new subject. Alan Cruse identifies three types of non-linear polysemy:

- metonymy, where one sense "stands for" another (from "hands (body part)" to "hands (manual labourers)")
- metaphor, where there is a resemblance between senses (from "swallowing (a pill)" to "swallowing (an argument)")
- other construals (for example, from "month (of the year)" to "month (30 days)")

There are several tests for polysemy, but one of them is zeugma: if one word seems to exhibit zeugma when applied in different contexts, it is likely that the contexts bring out different polysemes of the same word. If the two senses of the same word do not seem to fit, yet seem related, then it is likely that they are polysemous. The fact that this test again depends on speakers' judgments about relatedness, however, means that this test for polysemy is not infallible, but is rather merely a helpful conceptual aid.

The difference between homonyms and polysemes is subtle. Lexicographers define polysemes within a single dictionary lemma, numbering different meanings, while homonyms are treated in separate lemmata. Semantic shift can separate a polysemous word into separate homonyms. For example, *check* as in "bank check" (or Cheque),

check in chess, and *check* meaning "verification" is considered homonyms, while they originated as a single word derived from *chess* in the 14th century. Psycholinguistic experiments have shown that homonyms and polysemes are represented differently within people's mental lexicon: while the different meanings of homonyms (which are semantically unrelated) tend to interfere or compete with each other during comprehension, this does not usually occur for the polysemes that have semantically related meanings. Results for this contention, however, have been mixed (Klein& Murphy 2001).

For Dick Hebdige (1979) polysemy means that, "each text is seen to generate a potentially infinite range of meanings," making, according to Richard Middleton (2002), "any homology, out of the most heterogeneous materials, possible. The idea of signifying practice–texts not as communicating or expressing a pre-existing meaning but as 'positioning subjects' within a process of semiosis–changes the whole basis of creating social meaning".

Charles Fillmore and Beryl Atkins' definition stipulates three elements: (i) the various senses of a polysemous word have a central origin, (ii) the links between these senses form a network, and (iii) understanding the 'inner' one contributes to understanding of the 'outer' one (Fillmore and Atkins, 2000).

One group of polysemes are those in which a word meaning an activity, perhaps derived from a verb, acquires the meanings of those engaged in the activity, or perhaps the results of the activity, or the time or place in which the activity occurs or has occurred. Sometimes only one of those meanings is intended, depending on context, and sometimes multiple meanings are intended at the same time. Other types are derivations from one of the other meanings that lead to a verb or activity.

2.4.2. Polysemy and Meaning Change

To some extent, direct correlation can be found between polysemy and meaning change. One can say without any second thought that meaning change leads to polysemy. Blank (1991) in his paper talks about polysemy in lexicon. Polysemy can be looked at as a synchronic and diachronic phenomenon. In order to understand the diachronic foundation of lexical polysemy we need to understand the typology of semantic change. Blank (1991) lists eleven types of lexical semantic changes: 1. metaphor, 2. co-hyponymous transfer, 3. semantic extension, 4. semantic restriction, 5. lexical ellipsis (absorption) 6. metonymy, 7. popular etymology, 8. auto-converse change, 9. antiphrasis, 10. auto-antonymy and 11.analogous semantic change.

The well-known type of polysemy is metaphoric polysemy. Metaphoric polysemy is generally considered as a diachronic process. The similarity inside one and the same conceptual domain or folk-taxonomy is the basis of co-homonymous transfer. This gives rise to co-homonymous polysemy. When converse relation develops within the same word, the auto-converse change takes place leading to auto-converse polysemy. The synchronic relation between two senses of a word as "metaphoric

polysemy" is inexact as they do not describe the whole polysemy of a word. A pair of two related senses of a word can establish semantic links to other senses of the word in question is self-evident. It does not mean that all the senses of a word are interrelated or have "something in common" when we say that the word is polysemous. Polysemy has to be visualized as a chain or network of senses. An application of polysemy in lexicography inevitably leads to complex representations. It allows characterizing of the relations between the senses of one word.

Polysemy as a phenomenon of semantic description interacts with contextual variation (as also called "vagueness") and homonymy (also known as "ambiguity"). Generally distinguishing these three concepts are not that easy. Contextual variation can be accountable to polysemy. Generally words occur only in concrete utterances; it does not occur in more abstract and idealized dictionary situations. One has to define the boundary between senses attributed to a particular word. This can lead to the distinction between vagueness, polysemy and homonymy.

According the modal developed by Blank there are fourfold typology of different levels of polysemy: (1) rule-based non-lexicalized polysemy, (2) rule based and lexicalized polysemy with no or few idiosyncratic restrictions, (3) rule-based and lexicalized polysemy with idiosyncratic restrictions and (4) idiosyncratic lexicalized polysemy. These different levels of conventionalization and idiosyncratic restrictions mark the speaker's awareness of polysemy to certain extent.

Blank has demonstrated with his examples that polysemy is not fully derivable from semantic change. Polysemy is revealed to be merely one way in a set of possibilities. It is a directly lexicalized consequence of semantic innovation. Innovations can become conventional on the level of a discourse type. Lexical polysemy has now become defined in positive terms and as a tool of semantic and lexicographic description.

2.4.3. Polysemy and Cognitive Linguistics

Within this framework, polysemy is defined as a systematic relation of meanings (Lakoff 1987:316, Johnson 1987:193). When speaking about polysemy, the fact that we are dealing with multiple meanings is not the main point. Rather it is the fact that those multiple meanings are related not in an arbitrary but in a systematic and natural way. According to Lakoff (1987), polysemy has to be understood as categorisation, that is to say, the idea that related meanings of words form categories and that these meanings bear family resemblance, an idea introduced by Austin (1961). Taylor (1995:108) explains this family resemblance category in terms of 'meaning chains'. A lexeme can convey different meanings A, B, C, D, … A is related to B in virtue of some shared attribute(s) or other kind of similarity. Meaning B in turn becomes the source of a further extension to meaning C and so on. This 'meaning chain' can be represented in (5), where any node in a meaning chain can be the source of any number of meaning expressions:

(5) A→ B → C → D…

Taylor compares these 'meaning chains' to Lakoff's 'radial categories'. A category is structured radially with respect to a number of subcategories: there is a central subcategory, defined by a cluster of covering cognitive models. In addition, there are noncentral extensions which are not specialised instances of the central subcategory, but variants of it. The extensions of the central model are not random, but motivated by the central model plus certain general principles of extension. One of the advantages of this approach, if compared with classical models, is that it offers adequate means of characterising the situations where one or more senses are central or more representative.

Polysemy is then, the result of the extension of Idealised Cognitive Models (henceforth ICM) - complex structure wholes, gestalt- to form radial categories. Sometimes, a single ICM can be the basis for a collection of senses that form a single natural category. For instance, the ICM of the lexeme *window* can take three meanings; 'an opening in the wall', 'a frame fitting into the wall' and 'the glass filling the frame fitting into the wall'. These three senses are not unrelated. They form a natural category of senses, where correspondences remain physical. These correspondences have been explained in terms of image schemata, i.e. recurring structures of, or in, our perceptual interactions, bodily experiences and cognitive operations (Johnson 1987:79).

In some other cases, these correspondences do not take place within the same ICM, but between the ICMs of two domains. As has been pointed out before, Lakoff and Johnson (1980) proposed conceptual metaphor, the experientially based mapping from an ICM in one domain to an ICM in another domain, as one of the means for relating the different senses of a word; as well as other mappings such as metonymical and symbolic models.

Although the usage of metaphor as a primary cognitive function (Johnson 1987) is agreed, it is argued that metaphor alone is not enough to account for the different senses that a lexical item can convey. On the one hand, some of these meanings are physical and therefore, cannot be accounted by means of metaphor. And, on the other hand, in many cases the transfer of meaning is not due to the tactual verb itself, but to the meaning of its arguments.

As Cognitive Linguistics does not seem to focus on this issue, it would be very enlightening to review other approaches that tackle those cases where the arguments of the verb play an important part in the shift of meaning. Such an approach is Pustejovsky's (1995) Generative Lexicon. In this model, within the characterisation of the semantics of the lexical item, a verb in this case, it is possible to include the information implied by the arguments of the verb and therefore, to show how the overall meaning of the sentence is formed. It is to this approach and its application to the different meanings of tactual verbs that we turn to in the next section.

Reality cannot be accessed independently from human categorisation, and consequently the structure of reality as it is reflected in language is a product of the

human mind. Sweetser applies these cognitive ideas to the study of semantic change and claims that the paths of semantic change are unidirectional: from the external (sociophysical) domain to our internal (emotional, psychological) domain; that is to say from a concrete source domain to an abstract target domain. These mappings between different conceptual domains, which appear to be a cross-linguistic rather than a language-specific phenomenon, are carried out by means of metaphors. Metaphors are understood as transfers, where properties from one concept are transferred to another, and in this way, it is how they 'allow us to understand one domain of experience (target) in terms of another (source)' (Lakoff and Johnson 1980)

2.5. Extensions of meaning

2.5.1. Three distinct types of extensions

Cruse (2000:201-202) under the title extensions of meaning talks about three distinct types of extensions: 1. naturalized, 2. established and 3. nonce extensions.

Naturalized extensions: What is historically no doubt an extended meaning may be so entrenched and familiar a part of a language that its speakers no longer feels that a figure of speech is involved at all: such readings of a word (or extension) is said to be naturalized (Cruse, 2000: 201).

He is in love.

It is hard to put into words.

The kettle is boiling.

Established extensions: There are readings which are well established and presumably have entries in the mental lexicon, but are none the less felt to be figures of speech:

John's a parasite/a lounge lizard/couch potato.

She shallowed the story.

There are too many mouths to feed

Nonce readings : Nonce readings are ones for which there are no entries in the mental lexicon; therefore cannot be 'looked up', but have to be generated and interpreted using strategies of meaning extension such as metaphor and metonymy. The following are the few examples:

West gave him a look that was heat-seeking, like a missile.

He had never told her his fantasies about being overpowered by her.

Her heart rolled forward at such a pitch, he could not catch up with it.

2.5.2. Ripple analogy of meaning extension

Meaning expansion of a lexical item is a productive mechanism. This mechanism increases the productive power of expressions. Without this mechanism we cannot express all our ideas with a minimal number of lexical items. The meaning extension mechanism leads to polysemy of lexical items. Pustejovsky (1995) tried to capture polysemy by generative mechanism. But his mechanism has its own limit. Let us try

another way of explaining this mechanism. Meaning extension is like a ripple created by a stone dropped in silent water (Figure 1). As ripple spread infinitely in water till it fades into nothing, the core or prototypical meaning of a lexical item spreads like ripples in water. The ripples are well pronounced or recognizable at the center and the adjacent areas and fades at the ridge. Similarly, the mechanism of meaning extension is clearly explainable at the central and adjacent points. But when it expands infinitely, taking into its fold a range of meaning expansions, we run into trouble, i.e. we find it difficult to explain. The mechanisms of meronym, metonymy, and cognitive psychology are predictable to some extent; but the human brain is highly unpredictable; the way it thinks may be beyond ones comprehension.

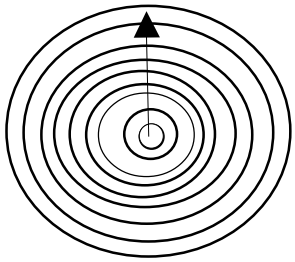


Figure 1

Dictionaries try to capture these ripples and try to list them as meanings under each lexical entry. The list of meanings of lexical items is nothing but the referential points in the ripples. The lexicographer has to identify these referential points as they have to furnish the user with these referential points so that an intelligent user make use of this efficiently while using them. A lexical semantic theory has to do more than identifying these referential points. The lexical semantic theory has to explain this expansion mechanism. Whether we agree or not, by a priory, for practical purpose we should have a referential point to start with in order to explain the mechanism of meaning expansion. Let us call this central point as core meaning or prototypical meaning. The expansion of this prototypical meaning is explainable and understandable (at least for the native speakers and intelligent users) in the nearby areas of expansion. The explanation becomes more difficult when go further apart from the center.

The above mentioned ripple analogy of meaning expansion is closely comparable to Riemer's (2001) three ways of categorization: micro-level, intermediate level and macro-level. He explains the meaning expansion by means of a figure (Figure 2) "Referent typicality and degree of perceived meaning difference." He identifies three levels as mentioned above. The prototypical referent at centre moves through these levels to reach "a typical referent" at the brim.

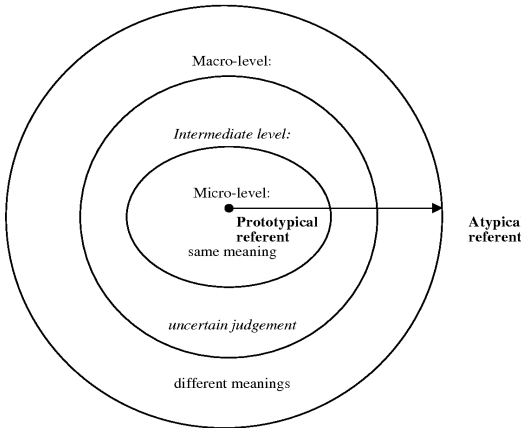


Figure 2

2.6. Semantic change

Semantic change deals with change in meaning. It is understood to be a change in the concepts associated with a word, and has nothing to do with change in the phonetic form of the word. Semantic change is very difficult to describe and explain. It is unlikely that scholars will ever be able to predict the directions in which particular words will change their meanings. The development of new material and social conditions may cause words to become unnecessary. For example, wimple 'a medieval head-covering' is not used anymore, because there is no need for it. On the other hand a shift of attitudes may render some words socially unacceptable (e.g. *frog, Jap, girlie...*), while others become highly fashionable or socially relevant (e.g. *cool, ecology...*). Nonetheless, by looking at a wide range of examples of semantic changes that have happened in the history of the English language, one can begin to develop a certain sense of what kinds of change are likely. Information about the original meaning of the morphemes and the intuition developed from observing various morphemes and the intuition developed from observing various patterns of semantic change will help us make better-informed guesses about the meanings of unfamiliar words that contain familiar morphemes. For example, if we see the word *infomercial* for the first time, what can we say about it? As the 1st part is information and the 2nd part is *commercial*, we can at least partially understand its meaning. But actually it is 'a television programme that is an extended advertisement often including a discussion or demonstration.

We shall focus first, on the mechanisms of change-what forces in our society, or what forces in our thinking, typically have brought about semantic change? Then we will turn to a classification of the results of semantic change, or to put it in other results of semantic change, or to put it in other words, how do these changes affect the lexicon?

2.6.1. Mechanisms of semantic change

Technology and current relevance : When new technology changes the way we conduct our daily life the words which refer to it change also. Consider, for example, the word *compute* and its derivatives - *computer, computation*. It used to mean 'to count, to reckon, to calculate'. Indeed the word *count* is a direct descendant (through French) of the Latin verb *computare* 'to count'. The computer, however, is no longer a 'counter': it has given its name to a new branch of science, computer science; we talk of computer addiction, computer-aided design, computer ethics, computer literacy, computer viruses, and even compusex. Computers deal with text, graphics, images, symbols, music; the original meaning of 'counting' in computer language has been completely supplanted by the new associations of 'computing'. As computers became common, many words changed their meanings because they could conveniently be used to refer to aspects of computing. For example, you can customize your commands, where customize refers to your setting up specialized function keys. The word custom already has many meanings outside this range of computers, e.g. characteristic behaviour of a society, special tax on importing goods, and customer as one who shops at a store.

The word command in customizing our commands is a specialized sense of a word that once meant 'an order given to a person of higher rank to a person of lower rank' - now it means 'to give a signal to the programme by pushing a certain key or clicking the mouse on the right icon'. In defining *command*, we have introduced mouse on the right icon. In defining command, we have introduced two new meanings: mouse and icon. Until the computer age, icon most commonly referred to pictorial representations of sacred personages in the Eastern Orthodox Church. The lively mouse is an input device, it can be mechanical or optical, it is connected through a mouseport, and it can cause mouse elbow. The computer revolution has given rise to new meanings for ordinary words. You can open two windows on your screen select computing (can open two windows on your screen), select computing operations from a menu, use hyphenation tools from your tools menu, select a hyperlink, paste a section from one document into another, look something called a clipboard, which is neither clipped, nor a board, you find the bug in your program, you surf the net, and so on.

The computer-related examples are numerous and striking, but the process they illustrate is neither new nor isolated. The word shuttle, whose original meaning is 'a device used in weaving', is more frequently used today in its later, extended figurative meaning of anything that goes back and forth: a shuttle bus, a shuttle flight, the space shuttle, and in politics, shuttle diplomacy. For some less-dramatic examples, think of nineteenth-century meaning of station-wagon, a 'horse-drawn covered carriage'. Another example comes from astrology, and it is the word disaster. Originally, disaster meant 'a bad, unfavorable, star or planet'. It came from astrology, in which the future is supposed to be predicted by configurations of stars. Our faith in such predictions was shuttered long ago, but the word maintains its meaning in a changed society.

Doctor meant 'teacher', from Latin *docere* 'to teach', and in that meaning it survives as an occasional title for professors. The medical sense, now the norm, was acquired gradually from the association with higher education that was characteristic of physicians. *Elegant* originally meant 'one who selects out', based on Latin *elegans*, from the verb eligere, 'to choose'. (E L E C T I O N - E L E G A N T, from the same root). Therefore, 'one who picks wisely'. An elegant person, for example, is taken to be elegant because he or she selects clothes and accessories wisely. *Adore*: It means literally, to speak to. At some point in history, kind of speaking came to be the speech of prayer, speaking to God. Eventually the association went even further: looking toward heaven, imploringly, would now be described as adoration. The point is the root which meant *speak* has come to refer to silent worship, a change brought about by association with prayer.

The connection between *amble* and *ambulance* is an accident of war: ambulance comes from a longer phrase, hospital ambulant, a 'moveable hospital', one which could be present on the battlefield to tend to the wounded. It was battlefield to tend to the wounded. It was merely shortened to the second part of the phrase giving us *ambulance.*

One thing we have to mention here is metonymy. Metonymy is an association of a particular type, usually accidental association in space or time. The real referent and the transferred referent are associated by virtue of being in the same place, as when we speak of the White House and we are in fact referring to the current President of the United States and his staff. This association is of both place and time, because *The White House* can only refer to the present President. Metonymy can be extended to cover changes resulting from other associations such as part and whole - *drink the whole bottle, give me a hand, live by the sword...*

Analogy

The association covered by the notion of metonymy is due to a more general cause: analogy. Analogy involves the perception of similarity between some concrete object or process and some abstract concept or process. The basic meaning of a word is related to another meaning in such a way that by analogy there can be a transfer or extension of meaning from one to the other. For example, if someone is the head of a department, the relationship of the head to the body – the literal sense – is being used in an extended or figurative sense, in which there is an analogical ratio set up: head is to body as head (=leader) is to department. It can be seen as an equation can be seen as an equation.

Thus if we say that 'The population is mushrooming all over the world', we are comparing the rapid grow of population to the unmanageable fecundity of a mushroom. If we speak of a 'traffic bottleneck', we are comparing some narrowing of traffic flow with the neck of a bottle where the contents flow more slowly.

Virtually any perceived similarity can be the basis of analogical change and the source of a new meaning. The analogy can be quite remote and even unlikely but if it

catches new meaning. The analogy can unite remote and even unlikely, but if it catches someone's fancy it may easily stick in the language.

e.g.

culminate - reach the top of the hill → to reach a decisive point, after struggling as if climbing.

dependent - hanging from something → supported by virtue of someone else's money or power.

educate - to lead forth, to bring up → to make competent, to raise to a higher social or cultural level

progress - to step forward → to improve, to move toward a better existence

provoke - to call forth → to incite with anger or desire, to irritate

understand - be located beneath → to grasp concept

Analogy is the most frequent and most important source of semantic enrichment of the language. This process could equally be called over-generalization, but loss of specificity has the slight advantage of reflecting a common human failing. All of us are prone to generalizing, prone to failures of specificity. One of the techniques we study when we are learning to write acceptable texts is how to be more specific, how to provide details and examples, how to find the right word for the meaning we have in mind. In every day speech and casual writing, we often choose the more general meaning. This tendency shows up historically when words acquire broader and more general meanings. For example, Guy Fawkes' infamous first name lost its specificity with the proliferation of November 5th effigies of the criminal; then *guys* began to be used of males of strange appearance then it was broadened to refer to any males appearance, then it was broadened to refer to any males, and now it is generalized (especially in the plural) to any group of people, including groups of females.

2.6.2. Consequence of semantic change

We turn now from the mechanisms of change to the consequences of change. What is the status of a word? Has its reference gone up, or down in its social status and content? One classic example of a word that has risen in status is knight, which used to mean, quite simply boy, manservant. *Pretty* came from OE *praettig* "crafty, sly". Rising in status is called amelioration / elevation (from Latin *melior*– 'better'). A development of the meaning in the opposite direction, which is perhaps more frequent, is called *pejoration* (from Latin *pejor* 'worse'). Another type of status is semantic bleaching, where the original meaning of the word has been eroded away and generalized by heavy usage, as in words like *very* (originally *true*), *terrible* (able to cause terror).

2.6.3. Types of semantic change

We can observe the process of semantic change from two aspects. First, we can observe the changes from the point of view of logic, or, in this sense, we observe the

results of semantic change. Here, the results can be studied in the denotative and the connotative meaning.

Widening or generalization or extension : A semantic change may lead to the widening of the meaning of a word or lexeme (this is usually observable diachronically). For example, *rubbish* in Old English only meant broken stones; present-day expression is wider and covers all kinds of unwanted or left-over property; *camp* had only the meaning of the military camp. *Office* originally meant 'a service', but today it refers also to a place where someone works. *Novice* originally meant 'a person admitted to a probationary membership in a religious community', but today it refers generally to 'a beginner'. *Dog* originally appeared with the more specific meaning of 'a specific powerful breed of dog', which generalised to include all breeds or races of dogs. *Salary* from Latin salarium was a soldier's allotment of salt (Latin sal=salt), which then came to mean a soldier's wages in general, and then finally wages in general not just soldier'.

Narrowing or specialization : The semantic change may lead to the narrowing or specialization of the meaning a word or lexeme; the word or lexeme acquires a more specialized meaning. For example, *actor* originally meant someone who does something, but it has changed its meaning into 'one who has a role in a dramatic production'. *Ammunition* originally considered to be military supplies of all kinds, but now it refers to bullets, rockets, that is military supplies that explode. *Meat* originally meant "food" in general and later narrowed it's meaning to "food of flesh". *Deer* originally referred to "an animal" (OE deor-animal). *Girl* originally meant a child or a young person of either sex" in ME period, but in Modern English it narrowed its meaning to a female child. *Starve* originally meant 'to die' (OE steorfan-to die), but today it means 'to suffer or perish from hunger'.

Branching : In this process the lexeme becomes polysemous; the newly developed sememes coexist, e.g. *head* – mind and mental abilities, part of the body, life (*it cost him his head*), individual person, leader, something resembling the head of the body (*head of cabbage, head of nail*), culmination, the top or the beginning of a page or letter, front or prominent part…

Degeneration / Pejoration : Semantic change results in degeneration or pejoration in which a sense of a word takes on a less positive, more negative evaluation in the minds of the users. E.g. *knave* 'a rogue' < OE: *cnafa* ' a youth, a child' > 'servant'; *spinster* 'unmarried woman' < 'one who spins'; *silly* 'foolish, stupid' < ME *sely* 'happy, innocent' < OE *sælig* "blessed, blissful'; *disease* 'illness' < 'discomfort' (cf. *dis+ease*)

Elevation /Amelioration : Semantic change results in elevation or amelioration in which there is a shift in the sense of a word in the direction towards a more positive value in the minds of the users. E.g. ***pretty*** < OE: prættig 'crafty, sly'; *knight*' mounted warrior serving a king' 'lesser nobility' < OE *cniht* 'boy, servant' > 'servant' > 'military servant'.

Metaphor : Metaphor is a semantic change based on the association of similarity between referents; the meaning is transferred on the basis of the fact that the two referents resemble one another. The basic structure of the metaphor is very simple. There is a thing we are talking about and that to which we are comparing it. Nevertheless, the similarity may involve different types: similarity of shape (*head of a cabbage*), similarity of position or location (foot of a page/mountain), similarity of form and position (the neck of a bottle), similarity of form and function (*teeth of a saw, an arm of a robot*), similarity of function (*head of department*), similarity in behaviour (*bookworm, wirepuller, fox*), similarity of colour . Consider the following types of similarities: *mouth – mouth of the bottle; hand – hand of the chair;* ear – ear of corn; eye - *eye of the coconut*. All metaphoric semantic change involves relationship of perceived similarity. e.g. **root* (of plant) =>> root of plant, root of word, root in algebra, source; **stud* =>'good-looking sexy man '(of slang origin) derived from *stud* 'a male animal used for breeding; **chill* => "relax, calm down' of slang origin, original 'to cool'.

Metonymy : In the case of metonymy (contiguity of meaning), the name of an attribute of a thing is used instead of the thing itself. Metonymic semantic change involves inclusion of additional senses which were originally not present but which are closely associated with word's original meaning. E.g. *tea* => 'drink' => 'evening meal accompanied by drinking tea'; *cheek* 'fleshy side of the face below the eye' < OE: cēace ' jaw, jawbone'. Proper names as metonymy can be illustrated by: *read Shakespeare*; *listen to Mozart*; *it was a Waterloo*.

Synecdoche : It is a kind of metonymy which involves part-to-whole relationship. Here a part is used to mean the whole, e.g. *have several mouths to feed* - "mouth" instead of a whole "person"; *Leeds defeated Manchester in football* – names of the teams are replaced by the name names of the cities. hand 'hired hand, employed worker'; *tongue* 'language'.

Others : Other types of meaning transfer are:

Eponymy (functional change) - common words are derived from proper nouns, e.g.: *sandwich, china, bikini, rugby, White House* (American government).

Personification – assigning human qualities to things, e.g.: *the paper says…*

Euphemisms – the need for a less expressive word, substitution of words which can be harmful for words with milder connotations, e.g.: *restroom* (toilet), *pass away* (die), *sleep with …* (have a sexual intercourse with…)

Taboo replacement and avoidance of obscenity– In order to avoid obscenity, a taboo word is replaced by a non-taboo word. e.g. ass 'long-eared animal related to a horse' =>*donkey*; cock'adult male chicken' =>*rooster*, *bloody nose =>blood nose/ bleeding nose; toilet* : *WC, bathroom, lavatory, restroom, loo, john*

Hyperbol: Hyperbole is a shift in meaning due to exaggeration by overstatement. The exaggeration of meaning in the statement need not be taken literally. E.g. *wait for ages, weight a ton; I'll kill him when I see him…*

Litotes : Litotes is the opposite of hyperbole, the understatement which can be often ironical or moderating; e.g.: It wasn't bad (in the sense of It was good), She's not stupid (She's rather smart); using terribly, horribly, awfully to mean 'very'.

2.6.4. Causes of meaning change

The phenomenon of semantic change must have its cause, the motivating factor that propels the change to happen. In the study of the lexicon, we distinguish two main causes: linguistic causes and extra-linguistic causes.

Linguistic causes: English has its general tendencies and development patterns, which cause certain semantic changes. The tendency of language economy is apparent in ellipsis: a phrase is made of two words, but the meaning of one of the words is gradually transferred to its partner, so one word can stand for the whole phrase, e.g. *to be expecting* (*to be expecting a baby*), *to propose* (*to propose to marry*). Language economy is also responsible for the tendency of differentiating of synonymy – *time* and *tide* used to be synonymous, today they differ considerably. Analogy: when one member of a synonymic set acquires a new meaning, the other members acquire it, too: when the word *catch* acquired the meaning of understand, its synonyms get, grasp acquired the new meaning as well. Today all three words also mean 'to understand'.

Extra-linguistic causes : Change of lexicon is most strongly pushed by the changes in the society, the speech community, the culture. The changes can be political, social, and economic. Institutions are being established and abolished, objects appear and disappear, and phenomena come and go. In most cases the words denoting the disappearing objects or events stay in the language, but their meaning is shifted, e.g.: car originally named today it is auto; *atom* originally (in Greek) meant invisible, today it's *atóm*, small matter particle. The following semantic changes need to be taken into consideration:

- Semantically related words often undergo parallel semantic shifts. For example, various words which meant 'rapidly' in Old English and Middle English shifted their meaning to 'immediately'.
- Spatial/locative words may develop temporal senses: *before, after, behind*. Also, spatial terms often develop from body-part terms, as in *ahead of, in the back of, at the foot of.*
- Word having to do with the sense of touch may typically develop meanings involving the sense of taste: *sharp, crisp.*
- Words involving the sense of taste may develop extended senses involving emotions in general: *bitter, sour, sweet.*

  see > understand, know.
  hear > understand, obey.
  body > person..

2.7. Lexicon

Semantics is a branch of linguistics studying the meaning of words while lexicon is a dictionary that includes or focuses on lexemes. Lexicon is otherwise known as the vocabulary of a language. Linguists consider grammar and lexicon complement each for the understanding of a language. Lexicon covers lexical resources such as dictionary, thesaurus and WordNet.

2.7.1. Dictionary

A dictionary is a collection of words on one or more specific languages, often alphabetically (or by radical and stroke for ideographic languages), with usage of information, definitions, etymologies, phonetics, pronunciations, translation, and other information; or a book of words in one language with their equivalents in another, also known as a lexicon. It is a lexicographical product designed for utility and function, curated with selected data, presented in a way that shows inter-relationship among the data. A broad distinction is made between general and specialized dictionaries. Specialized dictionaries do not contain information about words that are used in language for general purposes–words used by ordinary people in everyday situations. Lexical items that describe concepts in specific fields are usually called terms instead of words, although there is no consensus whether lexicology and terminology are two different fields of study. In theory, general dictionaries are supposed to be semasiological, mapping word to definition, while specialized dictionaries are supposed to be onomasiological, first identifying concepts and then establishing the terms used to designate them. In practice, the two approaches are used for both types. There are other types of dictionaries that don't fit neatly in the above distinction, for instance bilingual (translation) dictionaries, dictionaries of synonyms (thesauri), or rhyming dictionaries. The word dictionary (unqualified) is usually understood to refer to a monolingual dictionary of general-purpose.

A different dimension on which dictionaries (usually just general-purpose ones) are sometimes distinguished is whether they are *prescriptive* or *descriptive*, the latter being in theory largely based on linguistic corpus studies–this is the case of most modern dictionaries. However, this distinction cannot be upheld in the strictest sense. The choice of headwords is considered itself of prescriptive nature; for instance, dictionaries avoid having too many taboo words in that position. Stylistic indications (e.g. 'informal' or 'vulgar') present in many modern dictionaries is considered less than objectively descriptive as well. Although the first recorded dictionaries date back to Sumerian times (these were bilingual dictionaries), the systematic study of dictionaries as objects of scientific interest themselves is a 20th-century enterprise, called lexicography, and largely initiated by Ladislav Zgusta.https://en.wikipedia.org/wiki/Dictionary - cite_note-Sintro-4 The birth of the new discipline was not without controversy, the practical dictionary-makers being sometimes accused by others of "astonishing" lack of method and critical-self-reflection.

The lexicon presents an ordered mental list of words available to a language user. As we have observed earlier, when the lexicon is externalized and generalized, it becomes the dictionary. The information provided in the lexicon or the dictionary covers the phonological, morphological, syntactic and semantic characteristics of the lexical items.

Phonological information guides us in pronunciation; morphological information refers to the formation of the word while syntactic information focuses on the categorical features as well as the distributional possibilities of the word. Semantic information relates to the meaning of the word.

When we focus on the features of words, we deal on the specific groups such as nouns, verbs, adjectives, adverbs, pronouns, conjunctions, prepositions etc. It is possible to classify words as content and form words. Content words have independent meaning, even in isolation. Content words have an open class system as they can accept new entries. For instance, in the age of Information and Communication Technology, such new words as *laptop, face book, disc drive* have been added to the dictionary of English. Form words also called function or grammatical words do not have independent meaning when they occur in isolation. Such words are used to signal syntactic or grammatical relationship within larger structures. Form words belong to a closed system because they cannot be expanded. They are also very few in number. They include-pronouns, auxiliaries, conjunctions, prepositions, determines/ determiners and particles.

Another way to classify words is to describe them as transparent or opaque. The meaning of transparent words can be deduced from the meaning of their constituent parts.

e.g.

Prefix Stem Suffix

un – god – liness

dis - satisfy(y) action

The meaning of opaque words cannot be determined from their constituent parts. Most opaque words are also structural, grammatical or form words.

2.7.2. Thesaurus

In general usage, a thesaurus is a reference work that lists words grouped together according to similarity of meaning (containing synonyms and sometimes antonyms), in contrast to a dictionary, which provides definitions for words, and generally lists them in alphabetical order. The main purpose of such reference works is to help the user "to find the word, or words, by which [an] idea may be most fitly and aptly expressed" – to quote Peter Mark Roget, architect of the best known thesaurus in the English language. Although including synonyms, a thesaurus should not be taken as a complete list of all the synonyms for a particular word. The entries are also designed for drawing distinctions between similar words and assisting in choosing exactly the

right word. Unlike a dictionary, a thesaurus entry does not give the definition of words. In library science and information science, thesauri have been widely used to specify domain models. Recently, thesauri have been implemented with Simple Knowledge Organization System (SKOS).

A dictionary is a collection of words along with their meaning, definition and description of usage. A thesaurus presents words as "word families," listing their synonyms without explaining their meanings or usage. Thesauri may list words alphabetically or conceptually. A dictionary is used to look up the meaning of a particular word, say when want to know what a word means, or the various contexts in which it may be used differently, what part or parts of speech it is, etc. A dictionary gives thorough details on the meaning, definition, usage and etymology of a word. A thesaurus usually does not contain all the words of the language. It provides several similar alternative words (synonyms), as well as contrasting words (antonyms). A thesaurus is also a useful resource when you know the meaning of the word but not the word itself.

2.7.3. Semantic lexicon

A semantic lexicon is a dictionary of words labeled with semantic classes and so associations can be drawn between words that have not previously been encountered: it is a dictionary with a semantic network. WordNet is an example for semantic lexicon.

WordNet : WordNet is a lexical database for the English language. It groups words into sets of synonyms called synsets, provides short definitions and usage examples, and records a number of relations among these synonym sets or their members. WordNet can thus be seen as a combination of dictionary and thesaurus. While it is accessible to human users via a web browser, its primary use is in automatic text analysis and artificial intelligence applications. The database and software tools have been released under a BSD style license and are freely available for download from the WordNet website. Both the lexicographic data (lexicographer files) and the compiler (called grind) for producing the distributed database are available.

Computers and the Lexicon: Until recently only dictionaries in printed book format represented the lexicon of a language. These are meant to show the lexicon's structure; rather, they facilitate the looking up of words and enable the user to find information about spelling, meaning, and use. Access to particular word is through their spelling, so dictionaries and lexicons must fulfill their purpose via an organization based on orthographic principles. On the other hand, WordNet is a semantic dictionary that is designed as a network, partly because representing words and concepts as an interrelated system seems to be consistent with evidence for the way speakers organize their mental lexicons. The first lexical reference book that took meaning as its organizing principle was Roget's thesaurus. Thesauruses are built around concepts and are designed to help users find the "right" word when they have a concept in

mind. By contrast, dictionaries are books designed to give users information about words and to help them understand the concepts behind unfamiliar words they have encountered. WordNet is neither a traditional dictionary nor a thesaurus but combines features of both types of lexical reference resources.

WordNet as a thesaurus: WordNets design resembles that of a thesaurus in that its building block is a synset consisting of all the words that express a given concept. Thus, the user of a WordNet who has a given concept in mind can find, by calling up one of the words expressing this concept, other words that lexicalize the same concept. But WordNet does much more than lists concepts in the form of synsets. The synsets are linked by means of a number of relations, including hyponymy, meronymy, and entailment. Different kinds of semantic oppositions lumped together in the antonymy relation link words only, rather than concepts. WordNet thus clearly separates the conceptual and the lexical levels, and this distinction is reflected in the one between semantic-conceptual and lexical relations that hold among systets and words, respectively. Unlike thesaurus, the relations between concepts and words in WordNet are made explicit and labeled; users select the relation that guides them from one concept to the next and choose the direction of their navigation in conceptual space. Words express concepts, and the lexicon is constrained by the kinds of concepts that are available to us by virtue of our perception of, and interaction with, the world around us. WordNet differs from thesauruses, where only lexicalized concepts are accounted for.

WordNet as a dictionary: In some respects, WordNet resembles a traditional dictionary. For example, WordNet gives definitions and sample sentences for most of its synsets. WordNet also contains information about morphologically related words. WordNet's goals differ little from those of a good standard college-level dictionary, and the semantics of WordNet is based on the notion of sense that lexicographers have traditionally used in writing dictionaries. It is in the organization of that information that WordNet aspires to innovation (Miller, 1998). WordNet does not give pronunciation, derivation morphology, etymology, usage notes, or pictorial illustrations. WordNet does however, try to make the semantic relation between word senses more explicit and easier to use.

Relations in WordNet: WordNet makes the commonly accepted distinction between conceptual-semantic relations, which link concepts, and lexical relations, which link individual words. The mental lexicon tends to build semantic networks with conceptual-semantic relations, whereas workers focusing on lexical aspects use primarily lexical, word-word relations. WordNet is organized by semantic relations. Since a semantic relation is a relation between meanings, and since meanings can be represented by synsets, it is natural to think of semantic relations as pointers between synsets. It is characteristic of semantic relations as pointers between synsets. WordNet does not contain syntagmatic relations linking words form different syntactic categories. The four major syntactic categories (noun, verb, adjective, and adverb) are treated

separately. Nouns are organized in lexical memory as topical hierarchies, verbs are organized by a variety of entailment relations, and adjectives and adverbs are organized as N-dimensional hyperspaces.

WordNet includes the lexical categories nouns, verbs, adjectives and adverbs but ignores prepositions, determiners and other function words. Words from the same lexical category that are roughly synonymous are grouped into synsets. Synsets include simplex words as well as collocations like "eat out" and "car pool." The different senses of a polysemous word form are assigned to different synsets. The meaning of a synset is further clarified with a short defining gloss and one or more usage examples. An example adjective synset is: good, right, ripe - (most suitable or right for a particular purpose; "a good time to plant tomatoes"; "the right time to act"; "the time is ripe for great sociological changes"). All synsets are connected to other synsets by means of semantic relations. These relations, which are not all shared by all lexical categories, include:

Nouns

hypernyms: Y is a hypernym of *X* if every X is a (kind of) *Y* (*canine* is a hypernym of *dog*)

hyponyms: Y is a hyponym of *X* if every *Y* is a (kind of) *X* (*dog* is a hyponym of *canine*)

coordinate terms: Y is a coordinate term of *X* if *X* and *Y* share a hypernym (*wolf* is a coordinate term of *dog*, and *dog* is a coordinate term of *wolf*)

meronym: Y is a meronym of *X* if *Y* is a part of *X* (*window* is a meronym of *building*)

holonym: Y is a holonym of *X* if *X* is a part of *Y* (*building* is a holonym of *window*)

Verbs

hypernym: the verb *Y* is a hypernym of the verb *X* if the activity *X* is a (kind of) *Y* (*to perceive* is an hypernym of to *listen*)

troponym: the verb *Y* is a troponym of the verb *X* if the activity Y is doing *X* in some manner (*to lisp* is a troponym of *to talk*)

entailment: the verb *Y* is entailed by *X* if by doing *X* you must be doing *Y* (*to sleep* is entailed by *to snore*)

coordinate terms: those verbs sharing a common hypernym (*to lisp* and *to yell*)

These semantic relations hold among all members of the linked synsets. Individual synset members (words) can also be connected with lexical relations. For example, (one sense of) the noun "director" is linked to (one sense of) the verb "direct" from which it is derived via a "morphosemantic" link.

The morphology functions of the software distributed with the database try to deduce the lemma or stem form of a word from the user's input. Irregular forms are stored in a list, and looking up "ate" will return "eat," for example.

Knowledge structure : Both nouns and verbs are organized into hierarchies, defined by hypernym or *IS A* relationships. For instance, one sense of the word *dog* is found following hypernym hierarchy; the words at the same level represent synset members.

Each set of synonyms has a unique index.
dog, domestic dog, Canis familiaris
=> canine, canid
=> carnivore
=> placental, placental mammal, eutherian, eutherian mammal
=> mammal
=> vertebrate, craniate
=> chordate
=> animal, animate being, beast, brute, creature, fauna
=> ...

At the top level, these hierarchies are organized into 25 beginner "trees" for nouns and 15 for verbs (called *lexicographic files* at a maintenance level). All are linked to a unique beginner synset, "entity." Noun hierarchies are far deeper than verb hierarchies. Adjectives are not organized into hierarchical trees. Instead, two "central" antonyms such as "hot" and "cold" form binary poles, while 'satellite' synonyms such as "steaming" and "chilly" connect to their respective poles via a "similarity" relations. The adjectives can be visualized in this way as "dumbbells" rather than as "trees."

Lexical hierarchy : Information about hyponymic relations between nouns is given in the definitional phrases of conventional dictionaries.

robin – a migratory bird that has a clear melodious song and a reddish breast with gray or black upper plumage.
bird – a warm-blooded egg-laying animal having feathers and forelimbs modified as wings.
animal – an organism capable of voluntary movement and possessing sense organs and cells with noncellulose walls.
organism – a living entity

Each hypernym leads on to a more generic hypernym. Hypernym cannot be represented as a simple relation between word forms. Hypernymy is a relation between lexicalized concepts, a relation that is represented in WordNet by a pointer between the appropriate synsets. A lexical hierarchy can be reconstructed by following the trail of hypernumically related synsets.

{robin, redbreast} @→ {bird} @→{animal, animate_being} @→ {organism, life_from, living_thing}

For each hypernymic relation we can add a corresponding hyponymic relation that points in the opposite direction. What emerges from this manner of representing hyponymy and hypernymy is a lexical hierarchy. Hierarchies of these sorts are widely used by computer scientist as a means of representing knowledge. The nouns in WordNet from a lexical inheritance system; a systematic effort has been made to connect hyponyms with their hypernyms (and vice versa). WordNet presupposes a linguistic knowledge of anaphoric relations; an anaphor can be a hypernym of its antecedent.

I thought it was robin but the bird flew away before I could get close enough to be sure. More generally, a hypernym can replace a more specific term whenever the context ensures that the substitution will not produce confusion.

Psycholinguistic aspects of WordNet : The initial goal of the WordNet project was to build a lexical database that would be consistent with theories of human semantic memory developed in the late 1960s. Psychological experiments indicated that speakers organized their knowledge of concepts in an economic, hierarchical fashion. Retrieval time required to access conceptual knowledge seemed to be directly related to the number of hierarchies the speaker needed to "traverse" to access the knowledge. Thus, speakers could more quickly verify that canaries can sing because a canary is a songbird ("sing" is a property stored on the same level as "canary"), but required slightly more time to verify that *canaries can fly* (where they had to access the concept "bird" on the superordinate level) and even more time to verify *canaries have skin* (requiring look-up across multiple levels of hyponymy, up to "animal"). While such experiments and the underlying theories have been subject to criticism, some of WordNet's organization is consistent with experimental evidence. For example, anomic aphasia selectively affects speakers' ability to produce words from a specific semantic category, a WordNet hierarchy. Antonymous adjectives (WordNet's central adjectives in the dumbbell structure) are found to co-occur far more frequently than chance, a fact that has been found to hold for many languages.

WordNet as a lexical ontology : WordNet is sometimes called ontology, a persistent claim that its creators do not make. The hypernym/hyponym relationships among the noun synsets can be interpreted as specialization relations among conceptual categories. In other words, WordNet can be interpreted and used as a lexical ontology in the computer science sense. However, such ontology should normally be corrected before being used since it contains hundreds of basic semantic inconsistencies such as (i) the existence of common specializations for exclusive categories and (ii) redundancies in the specialization hierarchy. Furthermore, transforming WordNet into a lexical ontology usable for knowledge representation should normally also involve (i) distinguishing the specialization relations into subtype of and instance of relations, and (ii) associating intuitive unique identifiers to each category. Although such corrections and transformations have been performed and documented as part of the integration of WordNet 1.7 into the cooperatively updatable knowledge base of WebKB-2, most projects claiming to re-use WordNet for knowledge-based applications (typically, knowledge-oriented information retrieval) simply re-use it directly.

WordNet has also been converted to a formal specification, by means of a hybrid bottom-up top-down methodology to automatically extract association relations from WordNet, and interpret these associations in terms of a set of conceptual relations, formally defined in the DOLCE foundational ontology. In most works that claim to have integrated WordNet into ontologies, the content of WordNet has not simply been corrected when it seemed necessary; instead, WordNet has been heavily re-

interpreted and updated whenever suitable. This was the case when, for example, the top-level ontology of WordNet was re-structured according to the OntoClean based approach or when WordNet was used as a primary source for constructing the lower classes of the SENSUS ontology.

Limitations : WordNet does not include information about the etymology or the pronunciation of words and it contains only limited information about usage. WordNet aims to cover most of everyday English and does not include much domain-specific terminology. WordNet is the most commonly used computational lexicon of English for word sense disambiguation (WSD), a task aimed to assigning the context-appropriate meanings (i.e. synset members) to words in a text. However, it has been argued that WordNet encodes sense distinctions that are too fine-grained. This issue prevents WSD systems from achieving a level of performance comparable to that of humans, who do not always agree when confronted with the task of selecting a sense from a dictionary that matches a word in a context. The granularity issue has been tackled by proposing clustering methods that automatically group together similar senses of the same word.

The units of a language change in course of time. The change affects both words and other bigger units of language including constructions. The meaning changes as the time passes away. The time induces change in the meanings of all the units of language. Both content and grammatical words undergo meaning change. The content word becomes grammatical word and gives grammatical meaning. For example the verbs poo and vaa are grammaticalized to denote some aspectual and modal meanings.

There is no need to make a distinction between the semantic change and semantic extension. Sometimes semantic extension can be considered as the subtype of semantic change. Generally historically related words with their meaning changed drastically are given separate entries in dictionaries are considered as semantic change and the meaning extension given in the same entry of a word in a dictionary is considered semantic extension. The meanings which are drastically different can be considered as semantic change ant/and the meanings which are changed but can be considered related can be considered semantic extension. But it is difficult to say what the meanings which can be considered semantically related are and what the meanings which can be considered drastically changed are. Such decisions are subjective rather than objective.

The cognitive linguistics helps us to understand how words change their meanings to some extent. The prototype theory promoted by Greeaerts (1997) and Fernandez (2007) helps us to understand the meaning expansion or extension in cognitive perspective. According to the prototype theory each word has their prototypical or central meaning from where the meaning expands. But prototype theory helps us to understand the meaning expansion to some extent only. Carpenter (2013) opines that the cognitive principles such as metaphor and metonymy induce meaning changes. We can look at the meaning change from the point of view of historical linguistics too.

Historical change look at meaning change as a gradual change, just like waves spread form/from the center of a disturbance in a still water body. Language changes due to the cognitive principle of analogy too. There are two approaches to semantics: subjective approach and objective semantics/approach. Comparatively subjective approach to semantics explains semantic change more successfully by making use of the prototype meaning than objective approach to semantics. That is why historical semanticists support prototype approach to semantics.

Traditionally change of word meaning is divided into two: one is amelioration and another is pejoration. In pejoration, a word takes on a derogatory meaning. Amelioration is the opposite process, in which a word's meaning changes to become more positively valued. The normalization of previously proscribed taboo words is a good example (like ass). Whether a meaning change is in positive direction or negative direction will often depend on little more than one's subjective judgement. The meaning change is considered due to generalization, widening and broadening. Opposite to generalization is specialization. The third dimension to traditional approach to semantic change is metaphor and metonymy. Metonymy is the process of sense development in which a word shifts to a contiguous meaning. 'Contiguous' has a number of different meanings. But the essential idea is that two senses are contiguous if their referents are actually next to each other, either spatially or temporally. Metonymy was a notion adopted into linguistics from rhetoric, the traditional study of figurative, literary and persuasive language. Another originally rhetorical concept with linguistic application is metaphor. Metaphors are based not on contiguity, but on similarity or analogy. Many instances of metonymic and metaphoric changes can be found in Tamil too.

Much modern work on semantic change stresses the role of conventionalization of implicature as a source of semantic change. To understand why meaning changes, we should not be thinking in terms of broad cognitive operations like metaphor and metonymy, but should look instead at how inference generated in discourse become part of lexicalized meaning.

2.7.4. Generative Lexicon

The 'Generative Lexicon' is Pustejovsky's (1995) approach to the problem of lexical ambiguity, to the multiplicity of word meaning and to the question of how we are able to give an infinite number of senses to words with finite means. The main thesis of this approach is that a core set of word senses is used to generate a larger set of word senses when individual lexical items are combined with others in phrases and clauses. For instance, in the case of verbs, the extensions of meaning are achieved by the combination of the verb with its arguments.

Based on Weinreich's (1963, 1964) classification of polysemy, Pustejovsky distinguishes between 'contrastive ambiguity' (traditionally, homonymy) and 'complementary ambiguity' (when lexical senses are manifestations of the same basic meaning of the word as it occurs in different contexts) Complementary ambiguity is

further subdivided depending on whether the category of the lexical item changes or not; this latter case, called 'logical' polysemy (cf. 'constructional' polysemy, Briscoe and Copestake 1991, Copestake and Briscoe 1996), is the one that interests us in this paper. In order to account for polysemy, Pustejovsky proposes a characterisation of lexical entries in four levels of representation: argument structure (specification of the number and type of logical arguments and their syntactic realisation), event structure (event type of a lexical item and phrase), qualia structure (binding between the argument and the event structures; models of explanation) and lexical inheritance structure (how a lexical structure is related to other structures in the type lattice). These levels are connected by generative devices (type coercion, selective binding and co-composition) that provide the compositional interpretation of words in context.

Generative lexicon (GL) is a theory of linguistic semantics which focuses on the distributed nature of compositionality in natural language. The first major work outlining the framework is James Pustejovsky's 1991 article "The Generative Lexicon" (Pustejovsky (1995). Subsequent important developments are presented in Pustejovsky and Boguraev (1993), Bouillon (1997), and Busa (1996). The first unified treatment of GL was given in Pustejovsky (1995). Unlike purely verb-based approaches to compositionality, generative lexicon attempts to spread the semantic load across all constituents of the utterance. Central to the philosophical perspective of GL are two major lines of inquiry: (1) How is it that we are able to deploy a finite number of words in our language in an unbounded number of contexts? (2) Are lexical information and the representations used in composing meanings separable from our common sense knowledge?

GL was initially developed as a theoretical framework for encoding selectional knowledge in natural language. This in turn required making some changes in the formal rules of representation and composition. Perhaps the most controversial aspect of GL has been the manner in which lexically encoded knowledge is exploited in the construction of interpretations for linguistic utterances. The computational resources available to a lexical item within this theory consist of the following four levels:

Lexical typing structure: giving an explicit type for a word positioned within a type system for the language;

Argument structure: specifying the number and nature of the arguments to a predicate;

Event structure: defining the event type of the expression and any subeventual structure it may have; with subevents;

Qualia structure: a structural differentiation of the predicative force for a lexical item. Pushtejovsky proposed a different approach to account the polysemous nature of lexical items, here in this case verbs. The principles of cognitive semantics (Talmy 2003, Wikipedia on "Cognitive semantics") and principles of generative lexicon (Pushtejovsky 1995, Wikipedia on "Generative lexicon") can be adopted to explain the phenomenon of semantic change and semantic extension found in verbs.

Chapter 3
Semantic Change and Semantic Extension of Tamil Verbs based on Cognitive Principles

Recognition of polysemy becomes very crucial for the proper understanding of the meanings of sentences. When we translate one language into another language, especially when we resort to machine translation, the polysemy creates a lot of problems. The polysemy leads to ambiguity which makes the translation across language a difficult process. So, the study of polysemy across language also becomes important. We need to study how words become polysemous and what is the reason for a word to acquire polysemy. This naturally evokes the question whether is it possible to predict or define the change of meaning or extension of meaning of a lexical item. It is difficult to draw a line between semantic change and semantic extension. If the polysemy leads to the formation of new entries in the lexicon, then we call the process as semantic change; if the polysemy does not lead to the formation of new entries we call them as semantic extension. For example *ndaTa* 'walk' of Tamil has two entries in a typical Tamil dictionary as it means 'walk' in one entry and 'happen' in another entry; this can be considered as a semantic change. The meaning listed under an entry is considered as semantic extension.

Rajendran (1978 and 2001) made a full-fledged study of sematic structure of Tamil. He tried to classify verbs of Tamil into certain domains based on componential analysis of meaning propounded by Nida (1975). He has classified verbs into verbs of movement, verbs of transfer, verbs of change of state, verbs of impact, verbs of senses, verbs of emotion, verbs of intellection, verbs of communication and verbs of other complex actions. This lays foundation to the semantic study of verbs. It is understood that the cognitive study of meaning change coupled with field semantics can give better perspective on meaning change or meaning extension. The semantic field analysis comes handy to understand the semantic change or extension of lexical items. It is possible to find out and predict how a lexical item belonging to one semantic domain or field moves to another domain or field. Verbs of movement typically show ample instances of cognitive extensions of meaning. For example *ooTu* 'run', *paRa* 'fly' can denote movement of time, movement of mind, etc. *ndaTa* which denotes walking in general extends its meaning to denote 'happen'. We can visualize some sort of universal tendency in these meaning extensions. The verbs found in verbs of movement, verbs of transfer, verbs of change of state, verbs of impact and verbs of senses have been studied on the perspectives of cognitive semantics and field semantics and relevant information have been presented in this chapter.

3.1. Semantic extension of verbs of movement

In Talmy's typology of motion verbs (Talmy, 1975), English verbal roots incorporate "manner of motion" but not "path of motion" (here: trajectory of motion): to swim, to fly, the trajectory being marked rather by pre- or post-positions. On the other hand, Romance languages usually incorporate "trajectory of motion": *entrer, sortir, arriver* and "manner of motion" is marked by gerundive phrases: *en nageant, en volant, en courant, en rampant*. Slavic languages are from this typological point of view closer to English (and to Germanic languages) than to Romance languages. Moreover (Dini and Di Tomaso, 1997) pointed out the fact that "the introduction and/or determination of a specific trajectory and of a resulting state depends on the preposition in English and on the interaction of prepositions and actional features in Romance languages." Compare *Peter went to London* and *Pierre est allé à Paris / Pierre est parti pour Paris*.

Motivation is a popular theme in cognitive linguistics. Roughly speaking, it concerns the extent to which a linguistic form or set of linguistic forms makes sense or is explainable within a language or across multiple languages. Motivation encompasses a range of influences on the way language is used and the way it is structured. It includes external influences, such as culture and social context, as well as internal influences, such as perception and higher level cognitive processes (e.g., categorization). Though motivation seeks to explain how language works and how it changes over time, it stands in sharp contrast to generative explanations for linguistic behavior. No rules are posited and no predictions are made (because there is no surface structure to be derived from a deep structure (Langacker, 1987). As cognitive linguists have shown time and time again, motivation is a perfectly reasonable way to describe and account for linguistic patterns, including semantic extensions of verbs. (Lakoff 1987). We are concerned with the motivation of a particular type of motion verb extension, specifically, the type shown in the examples in (1).

1a. caalai kaTarkarai vazhiyaakap poo-kiR-atu
road seashore through go-PRE-3NS
'The road runs along the coast.'

b. paatai paalaivanam vazhiyaakap poo-kinR-atu
path desert through go-PRE-3NS
A path goes through the desert.

c. toTarvaNTip paatai aaRR-ai puuney-ilirundtu mumpai varaip pintoTar-kinR-atu
train path river-ACC Pune-from Bombay till follow-PRE-3NS
The the railway track follows the river from Pune to Bombay.

Though extremely common in everyday Tamil, this type of semantic extension deserves in-depth attention for a number of reasons. Especially remarkable is that despite the obvious presence of a motion verb and the potential for motion, no explicit motion is expressed. For instance, (1a) describes a stationary situation (neither the road nor the coast moves) even though it contains a motion verb (runs) and describes a scene that could easily serve as a

good setting for movement—people, vehicles, or other mobile entities could and do frequently travel on roads near coastlines. The lack of motion in this kind of motion verb extension is especially apparent when comparing sentences such as (1a), (b), and (c) to sentences such as (2a), (b), and (c). The latter set features the same motion verbs and the same spatial scenes, but explicitly expresses movement.

2. a. meeri kaTaRkarai vazhiyaaka ooTu-kiR-aaL
Mary seashore through run-PRE-3FS
'Mary runs along the coast.'

b. oonaay paalaivanam vazhiyaakac cel-kinR-atu
wolf deseart through go-PRE-3NS
The wolf goes through the desert.

c. oru kaar andta basc-ai cennaiy-ilirundu pintoTar-kinR-atu
one car bus-ACC Chennai-from follow-PRE-3NS
'A taxi car follows the bus from Chennai'

In these cases, a mover changes position in physical space. For instance, in (2a), Mary starts running at one location near a coastline, continues running along the coastline, and eventually stops running at some other location along the coastline. Her movement occurs in a particular direction and unfolds in real time. It forms a path with a starting point, an endpoint, and points connecting the two. Thus, the sentences in (1a), (b), and (c) appear to be quite similar to those of (2a), (b), and (c); in both cases there is a path through a spatial scene. However, the difference lies in whether or not the motion actually occurs. The semantic extensions of motion verbs in (1a), (b), and (c) are not limited to Tamil. While examining motion verbs cross linguistically, we see many languages with this same type of extension. To name a few, the same is expressed English as 'The road runs along the coast (or 'The road goes along the coast'). In such languages, just as in Tamil, a set of motion verbs is frequently and systematically used by speakers to express stationary spatial scenes that "contain" path-like configurations (e.g., roads). Despite the obvious absence of actual physical motion in sentences such as (1a), (b), and (c) (as well as comparable motion verb uses in other languages), cognitive linguists argue that conceptualization and construal of such sentences involves an implicit type of motion. This implicit type of motion has been called fictive motion by Talmy (1983, 1996, and 2000), abstract motion by Langacker (1986), and subjective motion by Matsumoto (1996). On the cognitive linguistic view, comprehending a sentence such as (1a) requires the conceptualizer (language user, one who is conceptualizing) to mentally scan or "move" along the path associated with the subject noun phrase, for instance, road in (1a). In doing so, the conceptualizer experiences something akin to actual motion, for it involves "going" from a starting point to an end point, and it takes time to complete. The "movement" is believed to be subjective because it is the conceptualizer who induces or experiences the motion in the absence of an explicit agent. The "movement" is also purportedly necessarily enacted for it allows the conceptualizer to zero in on and infer

information about the position and orientation of the path (see Langacker 1986; Matsumoto 1996). We are interested to investigate whether fictive motion (more generally mentally simulated motion) motivates the use and behaviour of motion verbs in sentences like (1a–c), what will hereafter refer to as FM constructions (fictive motion constructions). We begin by discussing some of the grammatical and semantic behaviour of FM-constructions. Then we turn to the dynamics of physical motion, perceived motion, and simulated motion. After that, we discuss results from experiments that investigated whether fictive motion is actually involved in the comprehension of FM-constructions. Last, we discuss what type of research needs to be done to achieve a better understanding of mentally simulated motion in language use.

Motion verbs such as *go* and *run* are pervasive. Ontologically primary and reflective of one of the most fundamental human activities, motion verbs exist in all languages and show similar patterns of semantic extension cross linguistically. When used literally, a motion verb describes how a physical entity changes from one place in space to another place in space. Implicit in the event is the passage of time and the continuation of movement from a starting point to an end point (Miller and Johnson-Laird 1976). For instance look at the following sentence in Tamil:

meeri kaar-aic cennaiy-ilirundtu puune-kku ooTT-ic ce-nR-aaL
Mary car-ACC Chennai-from Pune-DAT drive-ADVP go-PAS-FMS
'Mary drove the car from Chennai to Pune'

Mary started her journey in Chennai and ends her journey in Pune. Enrooted, she might have passed through many other towns before reaching her destination. When used non-literally, a motion verb may have little or nothing to do with physical motion. For instance, note the following examples:

diipavavali varu-kiR-atu
Diwali come-PRE-3NS
'Diwali is coming'
avan mananilai amaitiyaana ndilaiy-iliruwndu koopamaana nilai-kkuc ce-nR-atu
his mind-state calm state-ABL angry state-DAT go-PAS-3NS
'His mind state moved from calm to angry state'

In the above instances in which the verbs of movement are used to denote certain actions, no movement transpires. Instead, time is understood as "moving" toward the speaker and one emotional state is understood as "moving" to another (see Boroditsky 2000; Clark 1973; Radden 1996). In some cases, a motion verb may even go so far as to grammaticalize, adopting a new grammatical function (Bybee, Pagliuca, and Perkins 1991; Heine, Claudi, and Hünnemeyer 1991).This is the case with Tamil *poo* 'go', which has become a future marker, as shown in the following example

ndaan tuungk-a-p poo-kiR-een
I sleep-INF go-PRE-1S
'I am going to sleep'

ndii enna ceyy-a-p poo-kiR-aay
you what do-INF go-PRE-2PS
'What are you going to do?'

As is well documented, motion verb extensions like these are motivated by conceptual metaphors (e.g., TIME IS SPACE, CHANGE IS MOTION), which enable to the understanding of a relatively abstract domain in terms of a relatively concrete one (e.g., Gibbs 1994b; Lakoff 1987; Lakoff and Johnson 1980; Radden 1997; Sweetser 1990).

3.1.1. Classification

Classification plays a prominent role in any type of scientific research. This is obviously also the case in the field of lexical semantics. Recently, classification procedures have been applied to elementary semantic features aiming at establishing a set of attribute-valued data for each lexical item. Such sets of semantic data are known as feature bundles or feature matrices. Much has already been done in this particular framework. However, this kind of classification (in which embedded charts of conceptual data are used) fails to describe the meaning of lexical units. Early classifications of motion verbs used only unstructured lists of semantic features even though the sets of features themselves have been carefully stratified. As an example of such procedures let us consider the pioneer work of (Bojar B., 1979) who proposed a classification of semantic features for Polish verbs of motion. In that work, lexical items were represented by enumeration of features. On the other hand, although Bojar B. was aware of the need to separate the knowledge of the World from semantic concepts, among the huge amount of features (124 features) she has distinguished belonging to 11 classes, some features seem not to be of semantic nature but rather belong to the common knowledge of native Polish speakers. Yet, it is not easy to make a clear distinction between what belongs strictly to linguistic semantics and what belongs to the knowledge of the World. As far as the meaning of verbs is concerned, it is moreover not always possible to separate information comprised in the verbs themselves from information which is understood from the context. The following is the classification of Bojar:

Change of location
Space of motion
liquid
solid
gaz / vacuum
Contact with space of motion
constant
intermittent

Moving body (kind of, parts, number of moving bodies)
Motive power
external/internal
position of the external motive power (before or behind the moving body)
duration of action of motive power
Direction of motion
relation between direction of motion and direction of gravitational force
change of direction
relation of direction of motion to the initial location of the moving body
speed (irrelevant, constant or variable, high or low)
relation between moving body and other entities
presence of other objects in the motion space
point of reference
presence of moving objects
presence of the observer of the motion
relation between directions of different moving objects
direction of the moving body towards other moving objects

The verbs of motion imply the primary feature '+motion'. Taking into consideration the classification given by Bojar, the verbs can be grouped into verbs of location, wandering movement, upward movement, downward movement, jumping movement, circular movement, movement towards outside, movement towards inside, scattering movement, shaking movement, and slipping movement. The location can be classified into three: land, water and air. The verbs of motion can be classified into three groups based on the medium of movement.

Of these verbs, the meanings of *ooTu* 'run' seem to be more complex. It contrasts with *ndaTa*'walk' in the following situations. On the land medium human and other animals employ two kinds of locomotion: (i) Locomotion in which there is repeated moments in which none of the limbs touches the medium. This kind of locomotion is denoted by *ooTu*. This can be translated as 'run' in English. (ii) The other kind is that in which at least one of the limbs (or one set of the limbs) is constantly in touch with the medium. This can be translated as 'walk' in English. This distinction holds good, as pointed above, in the case of human and higher animals. By higher animals we mean, animals whose body is comparatively elevated high from the ground level. Animals like cows, buffalos, tigers, dogs, cats, goats, lions, etc. falls in this category. Animals other than higher animals could be called lower animals for our purpose; they include animals like rats, reptiles, many-limbed invertebrates, etc. The distance between the ground and body of these animals is relatively low. Some of these animals do not have locomotive limbs and hence the distance between the ground and the body is zero; they move on their belly. If the lower animals move with their normal speed, then *uuru*'crawl' is used; if they move faster than their normal speed, then

ooTu is employed. It is of interest to note here that even when a man moves on his belly, that movement is denoted by *uuru*. The verb *ndiindtu* 'swim' denotes a horizontal swimming movement of living beings in water by means of fins. (This movement of ship, boat, submarine, etc. in water are denoted by the verb *ooTu* and not by *ndiindtu* and hence the feature 'living beings' is important in the definition). The flying movement of birds, insects, and aero plane is denoted by the verb *paRa*. The waving movement of a flag, the flying movement of a balloon, flying of kite in air, the movement of tiny things like dust particles, pieces of paper, leaves, etc. which are carried away by wind are also denoted by *paRa*. (The movement of bodies caused by shooting, launching and throwing cannot be denoted by *paRa* except in poetic usage.) The verb *izhai, tavazh, ndeLi*, and *ndakar* which are synonymous with *uuru* have some specifications. The verb *izhai* is used only in written language; *tavazh* is used to denote crawling movement of a human child by means of knees and palms; *ndeLi* is used to denote 'wriggle like worms, snakes or the like with long body; *ndakar* is used in the written language with meaning 'move slowly'.

palli cuvar-il uur-ndtu cel-kinR-atu
lizard wall-LOC crawl-ADVP go-PRE-3NS
'The lizard is crawling on the wall'
mutalai uur-ndtu karaikku va-ndt-atu
crocodile crawl-ADV come-PAS-3NS
'The crocodile came to the shore by crawling'

Based on the principle of prototype human being can be considered as the subject of most of the verbs of movement. The movement of the animals can be considered as an extension of the prototypical movement of human beings (at least in some cases). For example the walking of animals denoted by the Tamil verb *ndaTa* and running on animals denoted by *ooTu* can be extended as extensions of movement of human beings. Another examples of extension of meaning of movement in Tamil the metaphorical extension of *tavazh* 'crawl' to denote the movement of clouds in sky.

vaanatt-il meekangkaL tavazh-kinR-ana
sky-LOC clouds crawling-PRE-3NP
'The clods are crawling in the sky'

Another interesting metaphorical extension of verbs of movement in Tamil is using *ndaTa* 'walk' to denote the functioning of establishments or organization as noted below.

viyaapaaram ndanRaaka naTa-kkiR-atu
business well going-on-PRE-3NS
'The business is going on well'

3.1.2. Semantic extension in the verb **ndaTa** *'walk'*

The verb *ndaTa* prototypically denote walking by using legs. During the process of walking one of the legs is always in touch with the earth or medium of movement.

Crea's Dictionary of Modern Tamil (CDMT) (Second edition 2008) groups the senses of *ndaTa* into ten. This grouping will tell us the semantic extension of the prototypical meaning into eight sets of senses (considering the first group of sense as prototypical). Let us list these nine groups and try to understand the semantic extension of meaning or *ndaTa*.

1) Move at a regular pace by lifting and setting down each foot in turn, never having both feet off the ground at once.
   avan ndaTa-ndtu viiTT-ukkuc ce-nR-aan
   he walk-ADVP house-DAT go-PAS-3MS
   'He went home by walking'
2) Walk in space like an astronaut.
   aamstraang viNveLiy-il ndaTa-ndt-aar
   Armstrong open-space-LOC walk-PAS-3EP
   'Armstrong walked on the space'
3) Happen or take place like a good or bad event.
   avan-ukkup poona vaaram kalyaaNam ndaTa-ndt-atu
   he-DAT last week marriage walk-PAS-3NS
   'His marriage was held last week'
4) Happen
   avarkaL-ukkuL ennavoo ndaTandiru-kkiR-atu. atanaal avarkaL peecikkoLL-av-illai
   they-between something happen-PRE-3NS. That-is-why they talk-INF-not
   'Something has happened between them. That is why they have not talked with each other'
5) Function, run or go on like a family, office, etc.
   aapiis kaalai paatu maNiy-iliurndtu maalai aindtu maNi varai ndaTa-kk-um
   office morning 10 O' clock-from evening five O' clock till happen-FUT
   'The office will be functioning from ten O'clock in the morning to 5 O' clock in the everning'
6) Exhibit like cinema, drama, etc.
   andta tiyeeTTar-il cinimaa ndaTa-kkiR-atu
   that theatre-LOC cinema walk-PRE-3NS
   'Cinema is running in that theatre'
7) Be held or performed or be done as event, court case, negotiation, research, etc.
   avan vazhakku maavaTTa ndiidimanRatt-il ndaTa-kkiR-atu
   his case district court walk-PRE-3NS
   'His case is going on in the district court'

8) Behave or conduct oneself
avan avaL-iTam ndallavan-aaka ndaTa-ndtu-ko-NT-aan
he she-with good-person-ADV walk-ADVP-have-PAS-3MS
'He behaved like a good person with her'

9) Run age
kuzhandtai-kku pattu vayatu ndaTa-kkiR-atu
child-DAT ten age walk-PRE-3NS
The child is ten years old'

10) Succeed
un tandtirangkaL ellaam avaL-iTam ndaTa-kk-aatu
your tricks all she-with walk-not
'Your tricks will not work with her'

Among the ten groups of senses, only the first two denotes the movement by legs. But in the second one, the medium of movement is space rather than a base like floor. The second meaning discards the meaning feature that the medium of movement is on land against space or water. In all the other eight groups, the movement is only metaphorically implied. The changes or extension of meaning can be explained by the following three processes:

1) Real movement > Abstract movement
2) Hyponymous meaning > Hypernymous meaning
3) Specific semantic features > loss of specific semantic features

The specific meaning 'walking' is extended to denote the general meaning 'happen'. If you go by the movement of meaning from one semantic domain to another domain, it can be stated the verbs of movement indicated by *ndaTa* 'walk' moves to another sematic domain of 'Happen'.The 9th and 10th meaning extensions are quite unpredictable.

3.1.3. Semantic extension in the verb **ooTu** *'run'*

Prototypical meaning of *ooTu* 'run' can be defined as "move at a speed faster than a walk, never having both or all the feet on the ground at the same time". CDMT has grouped the senses of *ooTu* into 21 groups. The groping explicitly depicts to us the meaning extension of the prototypical meaning gradually like a ripple in a water body and the strikes the bank at the want of more space. Let us examine the 21 groups and try to understand the meaning extension.

1) Move like human beings with legs faster than walking. Animate beings like fish move fast and animate beings like snake crawl fast
2) Move like bus etc. by means of mechanical force
3) Roll like round objects.
4) Flows blood in blood vessels, pass as current in wires
5) Flee or escape

6) Run away from one's house or country
7) Run after something
8) Run in a cricket match, race, etc.
9) Roll as film, yarn, etc. from one end to other end
10) Run as machines like watches, clocks, etc
11) Move in and out as air while breathing
12) Beat as heart
13) Run across as lines in palms
14) Run as veins in body
15) Run one's eyes over something
16) Flash as smile on face and thought in brain
17) Show up in streak as grey hair
18) Run as films in theatres and progress as works
19) Get sold as things and go on as business, shop, etc.
20) Pass as time (quickly)
21) (With opposite forms or words) function normally

The first meaning can be taken as prototypical one which defines *ooTu* as 'move like human beings with legs faster than walking'. In English, the prototypical meaning of *run* is defined as 'move at a speed faster than a walk, never having both or all the feet on the ground at the same time.' CDMT has included the fast movement of fish with fins and snake by body wriggles also under the first meaning itself. This goes against prototypical concept. Except the prototypical meaning or moving fast by making use of legs, the other meanings are simply expressions of movements without legs. In the case senses from 2 to 9 the meaning implies the feature "+FAST'. The sense 13 to 21 can be considered as metaphoric extensions of moving. The senses 16 and 17 do not involve any movement. The movement is purely metaphorical. In the sense 4 the moving of liquid, i.e. blood in blood vessels and moving of current in wire are put together. The meaning extension can be listed as follows:

1. Moving of human beings with legs.
2. Moving of animals with legs
3. Moving of animals without legs fast
4. Moving of objects (without legs) but driven by mechanical force
5. Moving of engines (without legs)
6. Moving of liquid (without legs)
7. Moving of Time (without legs)

3.1.4. Moving up

The verbs *eeRu* 'climb', *ezhundtiru* 'get up', *ezhumpu* 'get up', *kiLampu* 'rise up' and *pongu* 'rise up' can be considered as implying the feature "+move up". The moving up can be separated into two: 1. Active movement using arms and legs and 2. Passive movement in which the moving up is promoted by an external agency. The

verb *eeRu* prototypically denote moving up using arms and leg (like climbing a tree). The verbs *ezhudtiru* and *ezhumpu* prototypically denotes changing from sitting, kneeling, reclining or lying posture to standing posture. The verb *uyar* prototypically denotes rise up of an entity relatively form lower level to higher level. The verb *kiLampu* denotes rise up from a hiding place, obscurity, etc. The verb *pongku* can be considered as denoting rising up while boiling.

3.1.4.1. Semantic extension of the verb **eeRu**

The verb primarily or prototypically denotes climbing up using arms and legs or limbs. It involves ascending by different types of locomotion and techniques. So the question of aids for promoting the movement and the medium where the movement takes place may arise. It generally denotes ascending movement of animate being and mobile bodes. Secondarily *eeRu* may mean 'rise, increase, enter and deposit'. The *iRan*gku can be shown as the nearest antonym of *eeRu*. CMTD lists sixteen senses. The semantic extension of *eeRu* can be explained as the step by step change of primary meaning of climbing by making use of legs and arms into 'put on weight' and 'mental understanding'.

1) Climb up by legs
   This verb primarily implies going up using legs.
   avan malaiy-il eeRikkoNTiru-kkiR-aan
   he hill-LOC climb-PRECON-3MS
   'He is climbing the hill'
   Sometimes the climb may require using arms too.
   avan maratt-il eeR-in-aan
   he tree-LOC climb-PAS-3MS
   'He climbed up the tree'
   Sometimes steps may be used to climb up.
   avar paTikaTT-il eeR-in-aar
   he staircase-LOC climb-PAS-3EP
   'He climbed up staircase'
2) Climb up by mechanical means
   The climbing movement can be extended to climbing movements of vehicles by mechanical force.
   pas mikac ciramattuTan malaiy-il eeR-iy-atu
   bus more difficulty hill-LOC climb-PAS-3NS
   'The bus climbed the hill with great difficulty'
3) Climb on animals and the like.
   The verb extends it meaning to denote climbing on an animal such as a horse.
   avan kutirai meel eeR-in-aan
   he horse on climb-PAS-3MS
   'He climbed on the horse'

4) Get inside or climb inside a vehicle
The verb can be extended to denote climbing or getting inside a vehicle.
avaL basc-il eeR-in-aaL
she bus-LOC climb-PAS-3FS
'She got into the bus.'

5) Embark
The above meaning is further extended to denote 'embark'.
avan amerikkaavu-kku vinaanam eeR-in-aan
he America-DAT aero-plane climb-PAS-3MS
'He boarded the aeroplane for America'
avar ndeeRRu indiyaa-v-ukkuk kappal eeR-in-aar
he yesterday India-DAT ship climb-PAS-3EP
'He embarked on a ship for India yesterday'

6) Climb ashore
The meaning of the verb can be extended to denote climbing on the shore from a waterbody.
avaL aaRR-il kuLittuviTTu karai eeR-in-aaL
she river-LOC bathe-ADVP shore climb-PAS-3FS
'She climbed the shore after having taken the bath'

7) Ascend a throne
The verb extends its usage metaphorically by denoting the ascending of somebody the throne. Note that in English too the verb ascend denotes 'ascending a throne'.
raajaa iRandta pinnar iLavaracan ariyaNaiy-il eeR-in-aan
Raja die-PAS-ADP afterwards price throne-LOC climb-PAS-TMS
'The prince ascended the throne after the death of the king'

8) Run over
The meaning of the verb *eeRu* is extended to denote 'run over on something or somebody as a vehicle'.
pas avan meel eeRi avan iRa-ndt-aan
bus he over climb-ADVP die-PAS-3MS
'He died having run over by a bus.'

9) Being loaded
This sense is further extended to objects (like bags, parcels, luggage, etc.) being placed or loaded in vehicles such as ship, train, aero-plane etc.
muuTTaikaL kappal eeR-in-a
luggage ship climb-PAS-3NP
'Luggage have been placed in ship'
The luggage being loaded in a ship can be considered as a result of a cause denoted by the transitive/causative form of the same verb *eeRRu* 'load'.
avarkaL muuTTaikaL-aik kappal-il eeRR-in-aarkaL
they luggage-ACC ship-LOC load-PAS-3EP
'They loaded the packages in the ship'

10) Enter

'Entering' is an important semantic extension of the verb *eeRu*. It includes entering of a needle or a spine like thing inside a body or an object and entering of air inside a tube. It is further extended to denote entering of water inside a leaky boat through a leaky hole. The following example will exemplify this.

kaal-il muL eeRi avaL-ukku kaal vali-kkiR-atu
leg-LOC thorn she-DAT leg pain-PRE-3NS
'Having pricked by a thorn in her leg she feels pain'

paTak-il ooTTai vazhiyaaka taNNiir eeR-i paTaku muuzhk-a-t toTangk-iy-atu
boat-LOC hole through water enter-ADVP boat sink-INF stat-PAS-3NS
'The boat started sinking as the water entered the boat through a hole'

Even entering of poison inside the body by snake bite is also denoted by *eeRu*.

paampu kaTi-ttu visham uTamp-il eeRa-t toTangk-iy-atu
snake bite-ADVP poison body-LOC enter-INF start-PAS-3NS
'The poison started entering inside body by the snake bite'

This meaning is extended further into entering a job too.

avan paTi-ttu muTi-tt-at-um veelaiy-il eeR-in-aan
he learn-ADVP finish-PAS-GER-EMP job-LOC enter-PAS-3MS
'He entered a job having finished his education'

11) Rise up or Increase

The verb extends it meaning to denote 'rise up relatively to a higher level' or 'be raised relatively to a higher level'.

kuLatt-il ndiir maTTam eeR-iy-atu
pond-LOC water level rise-PAS-3NS
'The water level in the pond rose up'

kampatt-il koTi eeR-iy-atu
'pole-LOC flag climb-PAS-3NS the pole'
'The flag is raised in the pole'

kaaRR-il paTTam meelee eeR-iy-atu
wind-LOC kite above climb-PAS-3NS
'The kite rose above by the wind'

The rising of flag can be considered as a result of a cause exerted by the transitive/ causative form of the same verb *eeRRu* 'cause to rise'. This meaning is further extended to denote increase of price, heat, age etc.

tangka-tt-in vilai eeRikkoNTee poo-kiR-atu
gold-GEN price increase-CON go-PRE-3NS
'The price of gold is going on increasing'

toocaikkal cuuTu eeR-iy-atu
iron-plate hotness increase-PAS-3NS
'The iron plate became hot'

avaL-ukku vayacu eeR-ik-koNTee poo-kiR-atu
she-DAT age increase-ADVP-have-ADVP go-PRE-3NS
'Her age is going on increasing'

Even increase of emotions like anger is also denoted by this verb.

avaL-ukku avan-ai-p paar-tt-at-um koopam eeR-iy-atu
she-DAT he-ACC see-PAS-GER-EMP anger increase-PAS-3NS
'Her anger increased as soon as she saw him'

12) Understand or absorb

The verb prototypically means 'climb by legs' metaphorically expands its meaning denote absorbing of knowledge by brain.

avan paTi-tt-atu onR-um avan muuLaiy-il eeR-a-v-illai
he read-PAS-GER one-thing his brain-LOC enter-INF-not
'What all he studied did not get absorbed in his brain'

13) Grammatical extension of *eeRu*

The *eeRu* function as verbalizer forming new verbs when combined with certain nouns.

kuTi 'settlement' + eeRu > kuTieeRu 'inhabit'
accu 'print' + eeRu > acceeRu 'get pinted'

3.1.4.2. The semantic extension of ezhu

The meaning denoted by the verb *ezhu* ranges from 'standing up' as a human being or animate being' to 'being raised up as a building'. CMTD has listed ten senses for *ezhu* depicting semantic extension of *ezhu*.

1) Stand up

The verb prototypically denotes standing up from lying or sitting posture to standing posture.

avan ndaaRkaaliy-il-irundtu ezhu-ndt-aan
he chair-LOC-from stood up-PAS-3MS
'He stood up from the chair'

2) Go up

The verb extends its meaning to denote 'rising up of objects aero plane in air'.

vimaanam konjam konjamaaka meelee ezhu-ndt-atu
aero plane little-by-little above rise-up-PAS-3NS
'The aero plane rose up little by little'

The verb can be extended to denote 'rising up of objects like balloon, smoke, etc. in air'.

nderupp-il-irundtu pukai ezhu-kiR-atu
fire-from smoke rise-PRE-3NS
'The smoke is rising up from the fire'
paluun meelee ezhu-ndtu paRakk-a aarampi-tt-atu
balloon above rose up-ADVP fly-INF start-PAS-3NS
'The balloon rose up and started flying'

The verb can extend its meaning to denote 'rising up of objects like ball after bouncing'.

pandtu taraiy-il paT-Tu uyaree ezhu-ndt-atu
ball floor-LOC strike-ADVP up rise-up-PAS-3NS
'The ball rose up after striking on the floor'

The verb extends its meaning to denote 'rising up of waves in sea'.

puyal kaaRR-aal alaikaL kaTal-il uyaree ezhu-ndt-ana
storm wind-by sea waves sea-LOC above rise-PAS-3NP
'The waves rose up due to storm'

The verb is further extended to denote 'rising of buildings (constructions) in a place'.

angkee pala aTukku maaTik kaTTiTam ezhu-kinR-atu
thee multiple storied building rise-PRE-3NS
'There one multiple storied building is rising'

3) Get up from bed

The verb extends its meaning to denote 'getting up from bed after sleep'.

avaL paTukkaiy-il-iru-ndtu ezh-ndtu ndaaRkaaliy-il uTkaar-ndt-aaL
she bed-from get up-ADVP sit-PAS-3FS
'She got up from the bed and sat down on the chair'

4) Act as tongue or hand

The collocation of *ezhu* with *ndaa* 'tongue' or *kai* 'hand' (mostly in negative context) denotes the initiation of the action of speaking to be executed by the tongue or rising to be executed by hand respectively.

avaL-ai eecu-v-ataR-ku avan eNN-in-aan. aanaal avan ndaa ezhavillai
she-ACC scold-FUT-GER-DAT he think-PAS-3MS. But his tong rise-not
'He thought of scolding her. But he could not raise his tongue'

avaL-ai aTippataR-ku kai oongk-a eNN-in-aan. aanaal avan kai ezhavillai
she-ACC hitting-DAT hand raise-INF think past-3MS. But his hand raise-not
'He thought of raising his hand to hit her. But he could not raise his hand'

5) Rise up as sound

The verb *ezhu* is extended to mean rising of 'sound, slogan, and the like.'

avar peec-i muTi-tt-at-um kaarakosham ezhu-ndt-atu
he speak-ADVP finish-PAS-GER clapping raise-PAS-3NS
'As soon as he finished talking, the sound of clapping rose'

6) Appear as thought, idea and feeling in mind

The verb *ezhu* is further extended to mean 'appear as a thought, idea, etc. in mind'.

avan manat-il oru eNNam ezhu-ndt-atu
his mind-LOC one thought rise-PAS-3NS
'A thought appeared in his mind'

This meaning is further extended to denote appearance of feeling such as desire, sexual feeling, pity, hate, jealous, hungry, etc. in mind.

avan manat-il koopam ezhu-ndt-atu
his mind-LOC anger rise-PAS-3NS
'Anger appeared in his mind'
uNav-ai-p paar-tt-at-um avan-ukku-p paci ezhu-nd-atu
food see-PAS-GER-EMP he-DAT hunger rise-PAS-3NS
'As soon he saw the food he is aroused of hunger'

3.1.5. Moving up down

Under this group the verbs *taazh, vizhu, utir, muuzhku, amizh, aazh, amar, uTkaar, kuni, vaTi, vazhi, koTTu*, and *pey* are included. The important diagnostic features which distinguish them from one another are:

(1) +Liquid object vs. +/- Liquid object
(2) + Change from standing posture or erect posture to sitting or bending posture vs. - Change from standing posture or erect posture to sitting or bending posture
(3) + Settling down of object after movement vs. +/- Settling down of object after movement
(4) Air and land vs. liquid vs. mud and sand as medium of movement
(5) + Manipulation of medium of movement vs. - Manipulation of medium of movement
(6) + Active movement vs. – Active movement
(7) Relative movement vs. Absolute movement

The verbs *vaTi, vazhi, koTTu*, and *pey* denote downward movement of liquid only and thus differ from other verbs. The verbs *iru, amar, uTkaar* and *kuni* differ from other verbs by denoting the change from standing or erect posture to sitting or bending posture. The verb *paTi* by implying the settling down of the object after downward movement differ from other verbs. The verbs *iRangku, taazh, vizhu*, and *utir* express the downward movement in air or on land. The movement denoted by *iRangku* and *taazh* include the notion that the moving object uses or manipulates the contact with the medium of movement. On the other hand, the movement denoted by *utir* and *vizhu* does not imply any use of the medium of contact. This differentiation is similar to that between 'descend' and 'fall' in English. So *iRangku* and *taazh* can roughly mean 'descend' and *utir* and *vizhu* 'fall'. A man descending from a hill utilizes his contact with the medium of movement, i.e. the hill or any other contact. The verb *iRangku* in some contexts denotes the active downward movement of agents like animals, water, vehicle, etc. Also the movement denoted by *iRangku* in certain contexts are absolute rather than relational. In these ways, *iRangku* differs from one of the meanings of *taazh*. They overlap each other in some other contexts. The verb *utir* differs from *vizhu* by presupposing the detaching of the object before it falls. The verbs *mungku*, *muuzhku*, *amizh* and *aazh* denote downward movement in liquid.

The verb *taazh* (i.e. in one of the meanings) also denotes downward movement in liquid. The verbs *muuzhku, taazh* (one of the meanings), *amizh* and *aazh* always imply complete immersion, whereas, *mungku* does not always imply complete immersion. The primary use of *amizh* and *aazh* are restricted to written language. The verb *puur* expresses downward movement in mud or sand.

3.1.5.1.The semantic extension of the verb **iRangku**

CMTD has listed 16 senses for *iRangku*. Its prototypical meaning is 'moving down from higher place to lower place by using legs'.The other senses can be considered as extensions.

1. Climbing down using legs from a height

avan malaiy-ilirundtu metuvaakak kiizhee iRangku-kiR-aan
he hill-from slowly down climb-down-PAS-3MS
'He slowly climbed down from the three'

Sometimes hands are also used along with legs as in the case of climbing down from a tree.

avan maratt-ilirundtu kiizhee iRangk-in-aan
'He climbed down from the tree'

Sometime steps may be used to climb down.

avan maaTippatikaL vazhiyaakak kiizhee iRangk-in-aan
he steps through down climb-down-PAS-3MS
'He climbed down through stairs'

2. Getting down

The verb can be extended to denote 'getting down from horse and vehicles such as bus, train and aeroplane.'

avan kutirai-yilirundtu kiizhee iRangk-in-aan
he horse-from down get-down-PAS-3MS
'He got down from the horse'

3. Getting into water bodies from shore

The verb can be extended to denote get into water bodies like river, etc. from shore.

avaL kuLippataRkaaka aaRR-il iRangk-in-aaL
she bathing-for river-LOC step-down-PAS-3FS
'She stepped down into river for bathing'

4. Flowing down from a height

The meaning of *iRangku* can be extended further to denote 'flowing down of water, waterfalls, etc. from a height.'

malaiy-ilirundtu aruvi kiizhee iRangku-kiR-atu
hill-from waterfalls down descend-PRE-3NS
'The waterfalls is flowing down form the hill'

5. Landing down from a height

The meaning of *iRangku* can be extended to denote landing down of flight, kite, bird, flag, etc. form a height.

aakaayavimaanam ooTu taLattil iRangk-iy-atu
aeroplane run-way-LOC descend-PAS-3NS
'The aeroplane landed on the run way'
uyaree paRa-ndtukoNTiru-nd-a paRavai taraiyil iRangk-iy-atu
height fly-CON-ADJP bird earth-LOC descend-PAS-3NS
'The bird which was flying at a height landed on the earth'

6. Arriving at a destination

The meaning of the verb is extended to denote 'arriving of packages or an army to a place.'

kalavaram ndaTa-ndt-a iTatt-il kaaval paTaiyinar va-ndtu iRangk-in-ar
revolt happen-PAS-ADJP place-LOC police army come-ADVP descend-PAS-3EP
'The police army arrived at the place where the revolt occurred'
kootumai muuTTaikaL kappal-il va-ndtu iRangk-in-a
wheat packages ship-LOC come-ADVP come-PAS-3NP
'The wheat packages arrived at by ship'

7. Decrease

The semantic extension of *iRangku* to denote 'decreasing' is an expected one. It denotes 'decreasing of price, fever (in a body), sunlight, water level, voice etc.'

inRu kaaykaRivilai ndanRaaka iRangk-i-viT-T-atu
today vegetable-price well decrease-ADVP-leave-PAS-3NS
'The vegetable price is reduced well today'
maalai ndaalu maNikku veyil iRangk-i-viT-um
evening four O'clock sunlight decrease-ADVP-leave-FUT
'The sunlight will decrease at 4 O'clock in the evening'
avan tan manaiviy-iTam peecum-pootu kural iRangk-i-viT-um
he his wife-with speak-while voice reduce-ADP-leave-PAS-3NS
'His voice will be reduced while talking with his wife'

8. Stoop down

The verb extends its meaning to denote 'stooping down of one from a dignified level.'

avan tan ndilaiy-ilirundtu iRangk-i-va-ndtu avaL-ai veeNT-in-aan
he his level-from descend-ADVP-come-ADVP she-ACC reques-PAS-3MS
'He requested her stooping down from his (dignified) level'

9. Going inside

The verb extends it meaning by denoting the sense of 'going inside as the objects like nail, etc. inside something.'

aaNi maratt-il iRang-iy-atu
nail wood-LOC go-inside-PAS-3NS
'The nail went inside the wood'

10. Going out

The verb *iRangku* further extends its meaning to denote going out of air from a balloon, tire, etc.

paluun-il kARRu iRang-i-viT-T-atu
balloon-LOC air descend-ADVP-leave-PAS-3NS
'The air inside the balloon is reduced'

11. Taking in or swallowing

The verb *iRangku* extends is meaning to denote going inside as food, saliva, etc. to the gullet form mouth.

paci illaatat-aal avan-ukku caappaaTu iRangk-a-villai
hunger not-because he-DAT food go-down-INF-not
'He could not consume food as he was not hungry

The sentence literally means the food did not go inside (the gullet) as he was not hungry.

12. Involving oneself energetically

The verb *iRangku* extends its meaning to denote 'involving of one into some work, duty, etc.'

avan tiiviramaaka kaarityatt-il iRangk-in-aan
he seriously work-LOC descend-PAS-3MS
'He involved himself in his duty seriously'

13. Getting into play

The verb *iRangku* is used to denote players getting into play as shown by the following example.

avan aaTTatt-il iraNTaavataaka iRang-in-aan
he play-LOC second get-into-PAS-3MS
'He got into playing secondly'

13. Being removed

The verb *iRangku* can be used to denote removal of poision injected by animals like snake etc.

paccilai marundtu kuTi-tt-at-um visham iRangk-i-viT-T-atu
plant medicine drink-PAS-GER-when poison remove-ADVP-leave-PAS-3NS
'The poison is removed as soon as he consumed the medicinal plant medicine'

3.1.6. The extension of movement to denote emotions

Ponterotto (2014) in his book on "Happiness is moving up: Conceptualizing emotions through motion verb" explains how verbs of movement represent emotions across languages. Özçaliºkan (2003) notes that metaphorically the motion events involve the following conventions in Conceptual Metaphor Theory: a source domain, a target

domain and a conceptual mapping between the two domains. According to Pontrotto, we could formulate an example of the relative mapping in the following way:

Utterance	He climbed out of his depression.
Target domain	Emotion state (depression)
Source domain	Location
Mapping	Change of emotional state = change of location
Conceptual metaphor (CM)	CHANGES ARE MOVEMENTS

Ponterotto visualizes another metaphor, a CONTAINER metaphor which works here. Kövecses (2002), Özçaliºkan (2003) and Sandström (2006) consider that 'The body is a container for the emotions." The emotional states are conceptualized as bounded regions where change from one location to another is understood as motion into or out of a bounded region. A person can move into or out of this bound region (the body or parts of the body). With this background let us explore how the verbs belonging to motion moves into the domain of emotions.

1. The verbs of going-and-coming, *vaa* 'come' and *poo* 'go' can be used to denote getting the feeling such as anger, hunger, hate, jealous, etc.

   avan-ukku avaL meel koopam va-ndt-atu
   he-DAT she on anger come-PAS-3NS
   'He feels angry about her'
   avanu-kku avaL meel iru-ndt-a koopam poo-y-viT-T-atu
   he she on be-ADJP anger go-ADVP-leave-PAS-3NS
   'He is devoid of angry feeling for her'

2. The verb *eeRu* expressing upward movement of getting up from sitting or lying posture to standing posture can be used to denote increasing of emotions such as anger, jealous, doubt, etc.

   avaL-atu pazhiccol keeT-T-at-um avan-ukku-k koopam eeR-iy-atu
   her disgraceful-words hear-PAS-GER-when he-DAT anger increase-PAS-3NS
   'When he heard her disgraceful words his anger increased'

3. The verb *ezhu* expressing standing movement and the verb *kiLampu* expressing starting and rising up movement can be used to denote the appearance of feeling such as hunger, anger, sexual feeling etc.

   aruvi-y-il kuLi-tt-a pinnar avan-ukku-p paci ezhu-ndt-atu
   waterfalls-LOC bathe-PAS-ADJP after he-DAT hunger rise-PAS-3NS
   'He felt hungry after bathing in waterfalls'
   avaL azhak-ai-p paar-tt-at-um avan-ukkuk kaama iccai kiLamp-iy-atu
   her beauty-ACC see-PAS-GER-EMP he-DAT sexual feeling rise-PAS-3NS
   'As soon as he saw her beauty, he was sexually arosed'

4. The verb *pongku* which denotes rising up of milk while boiling can be used to express intensification of emotions such as happiness and anger.

   veLindaaTT-ilirundtu va-nd-a tan makaL-aip paar-tt-at-um avan-ukku makizhcci pongk-iy-atu

   foreign-country-from come-PAS-ADJP his daughter-ACC see-PAS-GER-when he-DAT happiness rise-up-PAS-3NS

   'His happiness is intensified by seeing his daughter who came from a foreign country'

5. The verb *kondtaLi* which denotes rising up of sea while disturbed by storm can be used to express 'enragement'.

   avar ndaaTT-il ndaTakk-um aniyaangkaL-aip paar-ttu uNarcciy-aal kondtaLi-tt-aar

   he country-LOC happen-ADJP injustice-ACC see-ADVP emotions-by boil-up-PAS-3EP

   'He was enraged by the injustices happening in the country'

5. The verb *ezhu* which prototypically denotes falling movement combines with the adverbial participle form of *eri* 'burn' to extend its meaning to express anger.

   avan tan manaivi miitu eppootum eri-ndtu vizhu-kiR-aan

   he his wife on always burn-ADVP fall-PRE-3MS

   'He is always furious with his wife'

6. The verb *kuti* which denotes primarily jumping movement extends its meaning to denote angry feeling with tantrum/outburst.

   avan tan parcil iru-nd-a paNatt-aik kaaNa-v-illai enak kutikuti enRu kutittaan

   he his money-purse be-PAS-ADJP see-INF-not that jump-jump that jump-PAS-3MS

   'He was angry with outburst that the money in his money-purse was missing'

7. The verb *tuLLu* which denotes primarlity a sort of jumping movement extends its meaning to denote the intensity of happiness.

   avaL makizhcciy-aal tuLL-in-aaL

   she happiness-by jump-PAS-3FS

   'She jumped with joy'

8. The verb *kuti* can also express the intensity of happiness.

   avaL makizhcciy-aal kuti-tt-aaL

   she happiness-by jump-PAS-3FS

   'She jumped with joy'

9. The verb *iRangku* which means 'move down; descend' expresses metaphorically the decrease in the intensity of feelings like anger.

   avaL-ukkuk koopam iRangk-a-c ciRitu ndeeram piTi-kkum

   she-DAT anger reduce-ADJP sometime take-FUT

   'It will take some time for her to reduce the feeling of anger'

10. The verb *muuzhku* which means 'immerse in water' denotes metaphorically a person deeply immersed in a feeling such as sorrow.

    avan tuyaratt-il muuzhk-in-aan
    he sorrow-LOC immerse-PAS-3MS
    'He was involved fully in sorrow'

11. The verb *aazh* which primarily means 'immerse deeply' denotes metaphorically the sense of 'deeply immersed in a feeling such as sorrow.'

    avan tan manaivi iRa-ndt-a ceyti keeT-Tu tuyaratt-il aazh-ndt-aan
    he his wife die-PAS-ADJP news hear-ADVP sorrow-LOC immerse-PAS-3MP
    'He immersed deeply in sorrow when he heard about the death of his wife'

12. The verb *alai* which primarily denotes the movement of moving here and there or wandering is extended to denote straying of mind without concentration and desiring intensively for something.

    avaL manam ndilai koLL-aamal alai-kinR-atu
    her mind position have-not wander-PRE-3NS
    'Her mind wanders without concentrating on anything'
    avan paNam paNam enRu alai-kinR-aan
    he money money that wander-PRE-3MS
    'He is running after money' i.e. 'He desires intensively for money'

13. The compound *alaikkazhi* which means 'be tossed about here and there' extends its meaning to denote 'suffer due to problems' or 'be harassed' or 'be tormented'

    avar ndirandtira veelai illaamal alaikkazhi-kiR-aar
    he permanent job not-ADVP be-tossed about-PRE-3EP
    'He is tossed about not having a permanent job'
    avar kuTumpa vivakaarangkaL-il maaTT-i-k-koN-Tu alaikkazhi-kiR-aar
    he family matters-LOC involve-ADVP-have-ADVP be-harassed-PRE-TEP
    'He is tormented by his family matters'

14. The compound *alaipaay* (*alai* 'wave' *paay* 'spring; leap') is used to denote the meaning 'be mentally confused'.

    enna ceyv-atu enRu tiirmaanikk-a iyal-aamal avaL manam alaipaay-kiR-atu
    what do-GER that decide-INF can-not her mind wander-PRE-3NS
    'Her mind wanders about unable to decide what to do'

15. The verb *atir* which means 'vibrate' is extended to denote the meaning 'being mentally shocked or being shaken by the sudden impact of an event or situation'.

    avan tan manaiviy-in maraNac ceyti keeT-Tu atir-ndtu-poo-y-viT-T-aan
    he his wife-GEN death news hear-ADVP vibrate-ADVP-go-ADVP-leave-PAS-3MS
    'He is shocked by hearing the news of his wife's death'

3.1.7. Extension of movement to denote sensing

As sensing is visualized sometimes as a motion, certain verbs of movement can be extended to the domain of 'sensing'.

avaL-ukku paarvai va-ndtu-viT-T-atu
she-DAT vision come-ADVP-leave-PAS-TNS
'She regained her vision'
avaLukkup paaravai pooyviTTatu
she-DAT seeing-sense go-ADVP-leave-PAS-TNS
'She lost her vison'

3.2. Semantic extension of verbs of transfer

Before understanding the semantic extension of verbs of transfer let us explore fully the sematic features which are common to all or particular groups of verbs and the distinctive sematic features that can help us to group the verbs into groups, subgroups and sets. The verbs grouped here express in general 'transferring of an object.' That is, the verbs denote that the object which is in the possession of a possessor is either transferred or moved to the possession of someone or some place. The diagnostic semantic features are '+Loss of possession' vs. '+Gain of possession'. The first group contains the verbs of giving, verbs of losing, etc. and the second group contains the verbs of getting, taking, etc.

The verbs denoting giving, sending, paying, depositing, pledging, selling, throwing, pouring, dropping, placing, leaving, and losing belong to the first group. The following are the diagnostic features which distinguish them from one another.

(1) + Active loosing vs. - Active loosing: The verb *koTu* 'give', *taa* 'give', *oppaTai* 'entrust', *oppi* 'entrust', *oppuvi* 'entrust', *aLi* 'give', *ii* 'give', *vazangku* 'give', *viniyooki* 'distribute', *viLampu* 'distribute', *parimaaRu* 'distribute', *anuppu* 'send', *kaTTu* 'remit', *aTai* 'remit', *oTukku* 'remit', *celuttu* 'remit', *aTakuvai* 'pledge', *paNayamvai* 'pledge', *iiTuvai* 'mortgage', *ottivai* 'mortgage', *pooTu* 'drop/put', *iTu* 'drop/put', *vai* 'keep down', and *viTu* 'leave' are marked by the feature '+Active losing'. That is, the subject of these verbs actively loses the object, for example, by giving the object to somebody, depositing the object in a bank, throwing the object somewhere, etc. The verbs *tolai*, *kaLai*, *celavazhi* (Intr.), *paRikoTu*, and *izha* are marked by the feature '-Active losing'.

(2) +Spending vs. -Spending: The verbs *celavazhi* (tr.) and *celaviTu* are marked for the feature '+Spending'.

(3) +Selling vs. –Selling: The verb *vil* is marked for the feature '+Selling'.

(4) + Recording vs. - Recording: If something is transferred to somebody or some place, the transfer will be recorded. This is specified by the feature '+Recording'. The verbs of playing, depositing, and pledging are marked for the feature '+Recording'. Thus the verbs *kaTTu* 'remit', *aTai* 'remit', *oTukku* 'remit', *celuttu* 'remit', *pooTu* 'deposit', *iTu* 'deposit', *aTakuvai* 'pledge', *paNayamvai* 'pledge', *iiTuvai* 'mortgage', and *ottivai* 'mortgage' imply the feature '+Recording'.

(5) + Receiving vs. – Receiving: The verb *koTu*, *taa*, *oppaTai*, *oppi*, *oppuvi*, *aLi*, *ii*, *vazhankgu*, *viniyooki*, *viLampu*, and *parimaaRu* imply the receipt of the object by a receiver. The verbs *eRi*, *viicu*, *ey*, *eevu*, *uuRRu*, *koTTu*, *pooTu*, *iTu*, *vai*, and *viTu* do not imply the receipt of the object by the receiver and thus marked by the feature '-Receiving'.

(6) +Sending vs. –Sending: Sending does not imply the immediate transferring of the object. The *anuppu* is marked by the feature 'Sending' (i.e. –Immediate transferring).

A few more 'transfers' which is represented by a noun plus verb collocation are also included under the verbs of paying, depositing, pledging, etc.

Among the verbs of GIVING, the verbs *koTu* and *taa* express giving in general. The verb *taa* is generally used when the receiver is first or second person; the verb *koTu* is generally used when the receiver is a third person. The verb *koTu* is used with other persons as receiver with less frequency. Other verbs are marked for some specific features. For example *oppaTai*, *oppi*, and *oppuvi* are marked for some specific features. The verbs *viLampu* and *parimaaRu* are marked for the feature +Entrust; *viLampu*, *parimaaRu* are marked for the feature +Serve. The verbs *vazhngku* and *aLi* denote 'giving a present; awarding a prize, punishment, verdict, etc.' Thus *aLi*, *ii* and *vazhangku* are marked for the feature +Benefaction/Award. The verb *viniyooki* is used in the official 'register' to denote distribution of applications form, rationed articles, etc.'

3.2.1. The semantic extension verbs of giving

The process of giving has been explored across languages. Huang and Ahrens (1996), Bisang (1996), Iwasaki (1997), Newman (1993, 1996), Song (1997), Thepkanjana and Uehara (2008), Viberg (2002), Yap and Iwasaki (1998), Muenjai and Thepkanjana (2007) have undertaken researches on this topic. The research of Newman about 'give' is important.

John Newman's book, on the syntax and semantics of GIVE across languages, strikes an excellent balance between descriptive, typological, and theoretical concerns. This is a highly ascribable work. It is useful to those who are interested in semantic theory and current developments in cognitive linguistics, as well as to those interested in general typology and descriptive work in syntax and semantics. While Newman makes his theoretical position very clear, no time is wasted which involved theoretical preliminaries. The discussion and presentation are, in general, simple and clear, and not too demanding for those who are unfamiliar with the theoretical background. Newman makes a significant contribution to cognitive linguistics by applying the principles of schema theory, schematic networks, polysemy structure, and correspondence in metaphor and metonymy, to a broad range of data from around one hundred typologically diverse languages.

Newman shows that while various languages display great variation in how they treat the expression of GIVE syntactically, and in how GIVE is used figuratively, the

attested patterns are all arguably motivated through conceptual extensions of various substructures of a basic prototypical GIVE scenario. According to him, the varieties of syntactic forms GIVE take in languages, and the range of semantic extensions based on GIVE, are argued not to bear literary, but both licensed and constrained in various ways by the basic conceptual schema.

Newman characterizes the semantics of GIVE as a complex schema. The prototypical giving scenario is presented, namely "an act whereby a person (the GIVER) passes with the hands control over an object (THING) to another person (the RECIPIENT)", and the various "domains" of this scenario are elaborated. These domains are "spatio-temporal", "control","force-dynamics", and "human interest". Newman consistently and constantly refers back to these aspects of his semantic characterization, and the result is an impressive account, especially in providing bases for motivation of the various ways GIVE verbs behave syntactically in languages.

Next Newman details a variety of figurative extensions of GIVE in languages. He shows how GIVE may be used in expressions of interpersonal communication (give a talk), emergence/manifestation of entities (what gives?), causative constructions (given to believe), permission/enablement (I give you cook = 'I make you cook'), schematic interaction (give the car a wash), recipient/benefactive (I cook give you = 'I cook for you'), movement (away/into), and completeness. Newman gives a very cogent and plausible account of the variety of extensions of GIVE in these figurative constructions, based squarely on his initial characterization of the basic, prototypical giving scenario. The result is a complex and well justified network of metaphorical and metonymic extensional relationships.

CMTD has listed 22 senses for the verb ***koTu*** in Tamil. They have been grouped under four headings as given below:

A. Usages of Causing to have

1. Making (one person or a thing) to have something; giving (as loan, gift, prize or something in similar manner)
2. Giving milk like (goats, cattle and the like); produce as crops; produce (as plants, tree, etc. the vegetables, fruits, etc.)
3. Paying tax, fee, etc.
4. Giving a girl in marriage
5. Giving priority, importance, etc. according, imparting
6. Giving a beating, kick, etc.
7. Allotting the power of a department, etc. to somebody
8. Letting for lease; issuing tickets, etc.; supplying
9. Giving some object or something to be dealt in a specific way
10. Giving somebody a kiss

B. Usages related to expressing outside and creating

11. Giving pleasure, enjoyment, etc.

12. Giving information, present, grant, etc.
13. Giving command, etc.
14. Yielding, producing
15. Providing, offering
16. giving of smell like flower

C. Usage of making to go inside

17. Inserting finger into mouth to vomit
18. Giving blood, oxygen, etc.
19. Administering medicine; giving milk, etc.

D. Other usages

20. Presenting, providing, offering (words, pictures in books)
21. Offering (sacrifice, etc.)
22. Giving mileage (like bus, car, etc.)

The prototypical meaning of verb *koTu* is causing to have somebody something. This has been listed as the first sense in the dictionary. The prototypical sense of *koTu* takes three arguments: the giver (subject), the receiver (indirect object) and the object received (object). The object in the possession of somebody is transferred to somebody so that objet comes to the possession of somebody after the action of giving.

Ten senses are given under the category A, the usage of which is causing to have. Apart from the first sense the rest of the nine senses in this category can be considered more or less as slight or wider extensions of the prototypical GIVE. In the case of second sense, the receiver is not explicitly given. The receiver can be only assumed. This is not the prototypical case of handing over one's position to somebody so that the other has the passion after the action of GIVING. In the case of third sense, the receiver is not explicitly given; the receiver can only be guessed. In the case of fourth sense, the possession is not a prototypical possession of having something. In the fifth sense, the giver does not possess anything in a prototypical manner and the receiver too does not get anything possessed by the giver. Nothing is transferred in a prototypical sense. It is a kind of focusing on something important. The sixth sense is also not a typical sense of transferring one's possession to somebody. The giver does not possess anything and the receiver too does not get any object of possession. The object given by the giver to the receiver is a kind of sensation in terms of punishment or similar action. The seventh sense is also not a typical case of transferring a possession. Here the item given is responsibility. The eighth sense is a complex one. Letting something for lease is a different type of transfer compared to issuing ticket and supplying something. The ninth sense of giving some object or something to be dealt in a specific way is not a typical case of transferring a possession. It is the responsivity of doing something is given to the receiver. It is just of matter of entrusting a job or work to the receiver. The tenth sense is not a matter of transferring an object

to a receiver. That which is given is a kiss; it is not at all a transfer in which an object possessed by the giver is transferred to the possession of somebody. In English too GIVE is extended in the same fashion.

The senses eleven to sixteen fall under the B category which is about the usage of expressing outside and creating. In the case of eleventh sense of giving pleasure, enjoyment, etc. too noting is transferred in a prototypical manner. This kind of extension is found in English GIVE too. In the case of twelfth sense though no object is transferred, the abstract entity in the form of information, description, and the like is transferred to the receiver. In the case of thirteenth sense what are given again are not an object but a command and the like.The sense fourteen is a typical instance of extension of *koTu*. Here the instance is a chemical reaction in which a new substance is resulted (yielded or produced) from the combination of two or more chemical substances. The fifteenth sense of *koTu* is 'providing situations or offering chances.' The sixteenth extended sense of *koTu* is emission of smell by flowers.

The seventeenth to nineteenth senses fall under the C category which is about making to go inside. The seventeenth sense is inserting finger inside the mouth so as to vomit. The seventeenth sense of *koTu* is giving blood, oxygen, etc. The nineteenth sense is administering medicine to someone and feeding milk, food etc.to children and the like. The twentieth sense to twenty-second senses fall under D category of others.

Aygül and Kurtoglu (2012) investigate the meanings of the polysemous verb *ver-* 'give' in the Turkish dictionaries with a corpus-based approach and to determine the prototype meaning of *ver-* 'give', other most frequent meanings, and the collocates of this verb by analyzing the concordance lines.When the uses of *ver-* 'give' are analyzed, it can be seen that the complex predicates formed by both incorporation and light verbs show great variety and their frequency is high. Rajendran (1978) has made similar type of observation while working with Tamil *koTu*. He has listed 17 verbs based on semantic criteria. Adopting Aygül and Kurtoglu (2012) the collocation of the verb with nouns are tabled as follows:

Communication		
Verbal	Oral	*viTaikoTu* 'give answer', *patilkoTu* 'give reply, *takavalkoTu* 'give information, *aRikkaikoTu* 'give report', *virivuraikoTu* 'give lecture', *viLakkamkoTu* 'give explanation', *vaakkukoTu* 'give a word/promise', *tiirppukoTu* 'give judgement', *meeRkooLkoTu* 'give example', *aRivuraikoTu* 'give advice', *aaNaikoTu* 'give order', *karutturaikoTu* 'give opinion'
	Written	*viLamparamkoTu* 'give advertisement', *manukoTu* 'give petition', *viNNamppamkoTu* 'give application', *pukaarkoTu* 'give complaint'

Non-verbal		*caikaikoTu* 'give signal', *kuralkoTu* 'give distress call', *camikkaikoTu* 'give signal, *vicilkoTu* 'give whistle'
Mental process		
		muTivukoTu 'give solution', *arttamkoTu* 'give meaning', *yoocanaikoTu* 'give advice', *mukkiyattuvamkoTu* 'give importance', *mariyaataikoTu* 'give respect'
Emotional State		
		uRcaakamkoTu 'give encouragement', *makizhccikoTu* 'give happiness', *tunpamkoTu* 'give sorrow', *inpamkoTu* 'give pleasure', *camaataanamkoTu* 'give peace of mind', *payangkoTu* 'give fear', *aatarravukoTu* 'give support', *tollaikoTu* 'give problem', *paacang-koTu* 'give affection', *atirccikoTu* 'give shock', *muttangkoTu* 'give kiss'
Concrete object		*poruLkoTu* 'give property', *paNangkoTu* 'give money', *kaTankoTu* 'give loan', *vaTTikoTu* 'give interest', *kaiyuuTTukoTu* 'give bribe', *vaaTakaikoTu* 'give rent', *taanangkoTu* 'give gift', *piccaikoTu* 'give alms', *cottukoTu* 'give property'
		anpaLippukoTu 'give gift', *paricukoTu* 'give prize', *vekumatikoTu* 'give gift', *virutukoTu* 'give award'
Person		*peNkoTu* 'give girl in marriage'
		tattukoTu 'give for adoption'
Change of State/Form		
		urukkoTu 'give shape', vaTivukoTu 'give form',
Permission		
		anumatikoTu 'give permission, *vazhikoTu* 'give way', *candtarppam* koTu 'give opportunity'
Emission		
		kuralkoTu 'give voice', *kuukkuralkoTu* 'give sound', veLiccangkoTu 'give light', *maNangkoTu* 'give smell', *cuuTukoTu* 'give heat'
Body parts		
		kaatukoTu 'give ear', *kaikoTu* 'give hand', *vaaykoTu* 'speak',

Production state		
		viLaiccalkoTu 'give produce', *makcuulkoTu* 'give produce',
Creation state		
		kuzhandtaikoTu 'give child', *uyirkoTu* 'give life'
Death		
		uyirkoTu 'give life/die'

Hunston (2002: 42) states that concordance lines are useful in the observation of central and typical meaning, usage, patterns and meaning distinctions. Concordance lines and collocates help us to recognize meaning distinctions. In this study, the authentic uses of the polysemous verb *koTu* 'give' are analyzed. It is observed that the verb *koTu* 'give' has different meanings and uses both as a lexical verb and as a grammatical verb in complex predicates.

Grammaticalization of *koTu*

The verb undergoes grammaticalization by extending its use as an auxiliary verb. The following have been noted:

(1) The verb *koTu* have been used in the benefactive sense when added to the adverbial participle form of the main verb.

avan avaL-ukku oru kuTam taNNiir eTu-ttu-k-koTu-tt-aan
he she-DAT one pot water take-ADVP-give-PAS-3MS
'He fetched a pot of water for her'
avan avaL-ukkuc camayal cey-tu-koTu-tt-aan
he she-DAT cooking do-ADVP-give-PAS-3MS
'He cooked for her'
avan kuzhandtai-kkup paaTam coll-i-k-koTu-tt-aan
he child-DAT lesson teach-ADVP-give-PAS-3MS
'He taught lesson to the child'

(2) The CMTD noted that the verb *koTu* is used as an auxiliary to indicate the change of state and gives the following example.

evvaLavoo aTi-tt-um irumputtakaTu vaLai-ndtu-koTukka-v-illai
many-time beat-PAS-EMP the iron-plate bend-ADVP-give-INF-not
'Even though the iron plate has been beaten for a number of times, it didn't bend'

Here too the benefactive sense only comes to the fore as *vaLai* 'bend' itself is a change of state verb. So the auxiliary *koTu* is used in the sense of helping the bending process.

3.2.2. Semantic extension in Verbs of GETTING

The verbs denoting buying, receiving, collecting, taking, earning, adopting, snatching, plucking, stealing, and getting. The diagnostic features which distinguish these verbs from each other are:

(1) +Active subject vs. – Active subject: The verbs *vaangku* 'get; buy', *peRu* 'get', *vacuuli* 'collect as tax, etc', *miiTTu* 'redeem', *tiruppu* 'redeem', *eTu* 'take', *poRukku* 'pick', *aLLu* 'scoop', *vaaru* 'scoop', *kooru* 'scoop', *campaati* 'earn', *iiTTu* 'earn', *tatteTu* 'adopt', *cuviikari* 'adopt', *cuviikaaram eTu* 'adopt', *piTungku* 'snatch', *paRi* 'pluck', *paRi* 'pluck', *koy* 'reap', *aay* 'reap', *uruvu* 'snatch', *tiruTu* 'steal', *kaLavaaTu* 'steal', *koLLaiyaTi* 'steal', *cuuRaiyaaTu* 'plunder', *apakari* 'steal', *kavar* 'steal', are marked for '+' feature. *kiTai* 'get', *kiTTu* 'get', *cikku* 'get', *akappaTu* 'get', *maaTTu* 'get' and *piTipaTu* 'be caught' are marked for the minus feature.

(2) Illegal vs.- Illegal: The verbs *tiruTu* 'steal', *kaLavaaTu* 'steal', *koLLaiyaTi* 'plunder', *cuuRaiyaaTu* 'plunder', *apakari* 'steal' and *kavar* 'steal are marked for the feature +Illegal.

(3) +Force vs. –Force: The verbs *piTungku* 'snatch', *paRi* 'snatch', *koy* 'pluck', and *uruvu* 'pull out' are marked for + Force.

(4) + Adopt vs. – Adopt: The verbs *tatteTu* 'adopt', *cuviikari* 'adopt' and *cuviikaram eTu* 'adopt' are marked for the plus feature.

(5) + Earn vs. –Earn: The *campaati* 'earn', *iTTu* 'earn' are marked for the feature '+Earn'.

(6) + Giver vs. –Giver: The verbs *vaangku* 'get/buy', *peRu* 'get', *vacuuli* 'collect as tax, etc.', *miiTTu* 'redeem', and *tiruppu* 'redeem' implay a give who gives the object and so marked for the plus feature. The verbs *eTu* 'take', *poRukku* 'take one by one', *aLLu* 'gather', *vaaru* 'collect and take', *kooru* 'take' do not imply a GIVER and so are marked for the minus feature.

The verbs *aTai* which denotes 'getting a present, etc.', *piTi* which denotes 'catching' and *eel* which denotes 'accepting' are included here because of their close relation with other verbs grouped here.

Semantic extension of *vaangku* 'buy/get'

The verb *vaangu* is a trivalent verb which denotes an action in which there is giver who gives an object to a receiver. In the case of *vaangku* 'get/buy', unlike *koTu* 'give' (for which the subject is GIVER), the subject is the RECEIVER and the GIVER is the source who possesses the object from whom the object is transferred to the receiver-subject. CMTD lists thirteen senses and grouped them into two sets:

a. The usages in which something is given to somebody and reaches him
b. The usages related to undergoing

Eight senses are listed under first group and four senses are listed under the second group.

The first extension of meaning of *vaangku* could be presumed as extending simple receiving into 'buying' in which money is transferred from the receiver to the giver for the sake of receiving the object.

avan avaL-iTamirundtu paNam vaangk-in-aan
he she-from money get-PAS-3MS
'He received the money from her'
avan kaTaikkaaran-iTamirundtu aindtu ruuppaay-kku pazham vaangk-in-aan
he shopkeeper-from five rupees-DAT fruit buy-PAS-3MS
'He bought fruits from the shopkeeper for five rupees'

This is extended to denote 'receiving wage for a work, interest for the money loaned, etc.'

avan taan cey-t-a veelai-kku maatandtooRum campaLam vaangku-kiR-aan
he his do-PAS-ADJP work-DAT monthly wage get-PRE-3MS
'He gets monthly wage for his work'

This is further extended to denote receiving score, award, degree, etc. for one's effort.

avan ciRandta ndaTikar-ukk-aana virutu vaangk-in-aan
'He good actor-DAT-for award get-PAS-3MS
'He received an award for good actor'

The usage further extended to denote receiving signature, agreement, approval, order, etc.

avan tan meelatikaar-iyiTamirundu cammatam vaangk-in-aan
he his superior officer-from approval get-PAS-3MS
'He received an approval from his superior officer'

The verb *vaangku* is extended further denote getting date, time, etc.

avan amaiccar-ai-p paarkk-a ndeeram vaangk-in-aan
'He minister-ACC see-ADJP time get-PAS-3MS
'He got the time to see the minister'

The verb is further extended to denote 'cutting of part of the body as a punishment.'

avan tan-ai etir-tt-a-van-in talaiy-ai vaangk-in-aan
he himself-ACC oppose-PAS-ADJP-3MS-GEN head-ACC get-PAS-3MS
'He cut off the head of a person who opposed him'

The meaning is extended to denote receiving punishment, name, etc.

avan taamatamaakac ce-nR-at-arkaaka tan aaciriyar-iTam tiTTu vaangk-in-aan
He late go-PAS-GER-for his teacher-from scolding get-PAS-3MS
'He got the scolding from his teacher because of his late going'

The verb *vaangku* is extended to denote absorbing too.

tuNi iiratt-ai vaangk-um
cloth wet-ACC get-FUT
'the clothe will absorb the wetness'

Rajendran (1978) classifies the semantic extension of *vaangku* 'get/buy' as follows. The table gives the extension of *vaangku* to other semantic domains due to its collocation with certain nouns.

Semantic Extensions	Examples
Get something worthy	*pukazh-vaangku* 'get praise', *peyar vaangku* 'get name', , *paaraaTTu vaangku* 'get praise', *patakkam vaangku* 'get medal', *paricu vaangku* 'get award'
Get something bad	*taNTanai vaangu* 'get punishment', *peeccu vaangku* 'get scolding', *eeeccu vaangku* 'get scolding', *tiTTuvaangku* 'get scolding'
Get something as return for service, work, etc.	*campaLam vaangku* 'get salary', *kuuli vaangku* 'get wage', *kaikuuli vaangku* 'get bribe', *vaaTakai vaangku* 'get rent'
Physiological action	*kaaRRu vaangku* 'get fresh air from outside' *muuccu vaangku* 'breath hard'
Motion	*pinvaangku* 'go back', 'retreat'
Impact	*pazhivaangku* 'revenge', *uyirai vaangku* 'trouble; take away life', *maanattai vaangku* 'defame in a mean way'
Perception	*kaatil vaangku* 'listen'
Understand	*uLvaangku* 'understand'

Meaning Extension of the verb *peRu* 'get'

The verb *peRu* can be classified similar *vaangku* with the same list of semantic extensions tabulated for *vaangku* except the last three extensions such as physiological action, motion, impact and perception. Apart from those extensions the meaning of *peRu* is extended to denote the physiological action 'give birth/deliver'.

avaL oru aaN kuzhandtai peR-R-aaL
she one male child give birth-PAS-3FS
She delivered a male child'

3.3. Semantic extension verbs of change of stage

Most of the semantic studies on verbs of change of state are based on syntax of the verbs and on the roles of arguments of the verbs (Fillmore, Charles 1970, Levin 1993, Hovav and Levin 1998, Levin and Hovav 1991, 1995, 2005; Golberg 2001, Rumshisky 2008). Unlike verbs of movement which talks about change of location and verbs of transfer which

talks about change of possession, the verbs of change of state are concerned with the change of state (shape, etc.).

The change of state verbs has been classified into twelve groups or subdomains (Rajendran 1978, 1983 and 2001).

1. Verbs of becoming dry or wet
2. Verbs of becoming cold or hot
3. Verbs of becoming lose or firm
4. Verbs of cooking
5. Verbs of becoming loose or tight
6. Verbs of losing colour
7. Verbs of becoming ripped
8. Verbs of becoming straight or losing shape
9. Verbs of becoming shrink or expands
10. Verbs of becoming reduced or increased
11. Verbs of spoiling

3.3.1. Semantic extension in Verbs denoting 'become dry or wet'

The verbs *kaay* 'become dry', *ular* 'become dry' *uNangku* 'become dry', *varaL* 'become dry' *vaaTu* 'wither as a flower', *vatankgu* 'wither as a flower', *vaRu* 'become fried or roasted', *pori* 'become parched', *karuku* 'become over heated', and *vaRRu* 'become dry' come under verbs denoting 'become dry'.

Semantic extension in verbs denoting 'become dry'

The verb *kaay* prototypically denotes 'become dry due to heat'.

tuNikaL veyilil kaay-kinR-ana
clothes sun-LOC become-dry-PRE-3NP
'The clothes got dried in sunlight'

Extension to denote Feeling

The prototypical verb meaning of *kaay* 'become dry' is extended to denote 'becoming extremely hungry when collocated with *vayiRu* 'stomach'.

avan-ukku vayaRu kaay-ndt-aal cappiT-a varu-v-aan
he-DAT stomach dry-PAS-CON eat-INF come-FUT-3MS
'He will come for eating if he is extremely hungry'

The meaning of verb *kaay* is extended to denote the feeling of dryness in throat. The verb *ular* 'become dry', *varaL* 'become dry' too denotes the same meaning extension.

peec-i-ppeec-i toNTai vara-NTu-viT-T-atu
speak-ADVP-speak-ADVP throat become-dry-ADVP-leave-PAS-3NS
'The throat became dry due to continuous talk'

Extension to denote Physical event

The verb *kaay* is extended to denote the physical event of 'shining like sun or moon'.

ndilaa kaay-kiR-atu. moTTai maaTi-kkup poo-v-oom
moon shine-PRE-3NS open-terrace-DAT go-FUT-1P
'The moon is shining; let us go to the open terrace'

Extension to denote healing of wound and thinning of body

The verb *kaay* which prototypically denotes 'become dry' can be used to denote 'healing of wound'

puN kaay-ndtu viTT-atu
wound dry-ADVP-leave-PAS-3NS
'The wound become healed'

The verb *uNangku* 'become dry', *ular* 'become dry' are synonymous with *kaay* in the above mentioned context. The verb *uNangku* 'dry' can be used to denote 'thinning of body'

cariyaakac caappiT-aatat-aal avan uNangk-i-viT-T-aan
regularly eat-not-GER because he become-lean-ADVP-leave-PAS-3MS
'As he was not taking food regularly he became thin'

The verb *vaaTu* which prototypically means 'fading of plants, flower and the like' can be extended to denote 'face loosing lustre' and 'suffering or grieving'.

andtac ceytiy-aik keeT-T-at-um avaL mukam vat-iy-atu
that news-ACC listen-PAS-GER-EMP her face fade-PAS-3NS
'Her face lost its lustre by hearing the news'

The verb *vaaTu* can be extended to denote 'subsiding of swelling in the part of a body'.

muulikaiyaiy-ai payanpaTuttiyat-aal avan kaal viikkam vat-iy-atu
medicinal-plant-ACC use-PAS-GER-INS his leg selling fade-PAS-3MS
'The swelling in his leg subsided as he made use of herbal medicine'

The verbs *ndanai* 'become wet', *iiramaaku* 'become wet', *uuRu* 'soak', and *kuvar* 'soak' are grouped under verbs denoting 'become wet'.

Semantic extension in verbs denoting 'become wet'

Prototypical meaning of *ndanai* 'become wet' and *iiramaaku* 'become wet' denotes the change of state of becoming wet.

mazhaiyil avaL aaTaikaL ndanai-ndt-ana
rain-LOC she dresses become-wet-PAS-3NP
'Her dresses became wet in rain'

The verb *ndanai* 'become wet' and *iiramaaku* 'become wet' collocate with the noun *kaNkaL* 'eyes' denoting the wetting of eyes expressing sorrow.

mana veetanaiy-aal avaL kaNkaL ndnai-ndt-ana/iiramaay-i-na
mental anguish-because her eyes wet-PAS-3NP/become-wet—PAS-3NP
'Her eyes became wet due to mental anguish'

3.3.2. Semantic extension in Verbs of becoming hot or cold

The verbs *cuTu* 'become hot', *cuuTaaku* 'become hot', *kaay* 'become hot as milk, oil, etc.' and *koti* 'boil' are grouped under 'verbs of becoming hot'. The verbs *kuLir* 'become cold', *taNu* 'become cold' and *aaRu* 'become cold' are grouped under 'verbs of becoming cold'. These verbs of change of state extend their meaning to denote emotion or feeling.

Semantic extension in Verbs of becoming hot

The verb *cuTu* which prototypically means 'become hot' metaphorically extends its meaning to denote 'hurt mentally'.

avaL co-nn-a col avan manat-aic cuT-T-atu
her say-PAS-ADJP word his mind-ACC burn-PAS-3NS
'She words hurt him mentally'

The verb *koti* which prototypically means 'boil', metaphorically extends its meaning to denote 'become extremely angry; be enraged'

tannai ikazha-vatu keeT-Tu avan manam koti-tt-aan
self-ACC deride-GER hear-ADVP he mind boil-PAS-3MS
'He became enraged by hearing the derision about him'

The verb *cuuTaaku* which prototypically means 'become hot' metaphorically extends its meaning to denote 'become provoked or become incensed or become aroused (sexually).

avaL kavarcciyaana uTamp-ai paar-tt-at-um avan uTampu cuuTaa-n-atu
her attractive body see-PAS-GER-when his body hot-PAS-3NS
'He became sexually aroused by seeing her attractive body'

Semantic extension in Verbs of becoming cold

The verbs *kuLir* 'become cold', *taNu* 'bccome cold', *taNi* 'become cold', and *aaRu* 'become cold' are grouped here. All these verbs which prototypically denote the change of state of 'becoming cold' extend their meaning to denote feeling or emotion.

The verb *kuLir* which prototypically denotes the change of state of 'become cold' extends its meaning to denote 'feel cold'.

kaappi ciRitu ndeeratt-il kuLir-ndtu-viT-T-atu
coffee small time-LOC become-cold-ADVP-leave-PAS-3NS
'The coffee became cold within short time'
avan-ukku iravu ndeeratt-il kuLir-ndt-atu
he-DAT night time-LOC feel-cold-3NS
'He felt cold in the night time'

The verb *kuLir* metaphorically extends its meaning to denote 'be satisfied, be happy, and be pleased'.

avan tana-kkut ta-ndt-a varaveeRp-aip paar-ttu manam kuLir-ndt-aan
he self-DAT give-PAS-ADJP welcome-ACC see-ADVP mind become-cold-PAS-3MS
'He became happy by seeing the reception given to him'

The verb *taNu* which prototypically denotes the change of state of 'become cold' extends its meaning to denote 'feel cold'.

avaL cuuTaakat ta-ndt-a kaappi taNu-ttu-viT-T-atu
she hot give-PAS-ADJP coffee become cold-PAS-3NS
'The hot coffee given by her became cold'

avan-ukku iravu ndeeratt-il taNu-tt-atu
he-DAT night time-LOC feel-cold-3NS
'He felt cold in the night time'

The verb *taNi* which is a verb of change of state prototypically means 'become reduced as heat' metaphorically extends its meaning to denote 'become reduced as angry, hungry, thirst, etc.'

mazhaiy-aaL veppam taNi-ndt-atu
rain-by heat be-reduced-PAS-3NS
'The heat is reduced due to rain'
avaLukku avan miitu iru-ndt-a koopam taNi-ndt-atu
she-DAT he on be-PAS-ADJP his anger become-cold-PAS-3NS
'The anger she had on him is reduced'
taNNiir kuTi-tt-at-um avaL-ukku taakam taNi-ndt-atu
water drink-PAS-GER-when she-DAT thirst quench-PAS-3NS
'She is quenched of her thirst as she drank water'

The verb *aaRu* which means the change of state of 'becoming cold' extends its meaning to denote 'be reduced as angry, hungry, thirst, etc.' It further extends it meaing to denote 'appeasing of mind'.

avaL enna camaataanam kuuR-iy-um avan-ukku koopam aaR-a-villai
she what-ever reason said-PAS-EMP he-DAT anger become-cold-INF-not
'His anger was not reduced even though she told him the reason'
tan kuzhandtaiy-aip paar-tt-at-um avan-ukku mancu aaR-i-viT-T-atu
his child-ACC see-PAS-GER-when he-DAT mind become-cold-PAS-leave-PAS-3NS
'As soon as he saw his child, he is appeased'

The verb *aaRu* extends its meaning to denote 'healing of a wound'.

marundtu pot-T-at-aal kaayam aaRiviTTatu
medicine put-PAS-GER-because wound heal-PAS-leave-PAS-3NS
'The wound was healed as he applied medicine'

3.3.3. Semantic extension in 'become hard' vs. 'become soft'

The verb *iRuku* 'become hard', *kaTinamaaku* 'become hard', *keTTipaTu* 'become hard', *keTTiyaaku* 'become hard', *keTTippiTi* 'become hard' denotes the change of state 'become hard'. The verbs *menmaiyaaku* 'become soft', *mirutuvaaku* 'become soft', *ndekiz*, *uruku* 'melt', *iLaku* 'melt', *izhu* 'become soft' and *karai* 'dissolve' can be grouped under the verb group 'become soft'. The verb belonging to this group carry the feature +BECOME HARD and the second group carry the semantic feature –HARD.

3.3.3.1. Semantic extension of verbs of 'hardening'

The verb *iRuku* 'become hard', *kaTinamaaku* 'become hard', *keTTipaTu* 'become hard', *keTTiyaaku* 'become hard', *keTTippiTi* 'become hard' denotes the change of state of 'become hard'. .

The verb *iruRuku* which prototypically means 'become hard' can be used to denote 'become tight'. It further extends its meaning to denote 'become tense as reflected in the face'.

taraiy-il iT-T-a cimaNTu kalavai ndanRaaka iRuk-i-viT-T-atu
flour-LOC put-PAS-ADJP cement mixture more hard-ADVP-leave-PAS-3NS
'The cement mixture smeared on the floor became hard'
avan iTupp-il kaTT-i-y-iru-ndt-a belt iRuk-i-viT-T-atu
he hip-LOC tie-ADVP-be-PAS-ADJP tight-ADVP-leave-PAS-3NS
'The belt around his waist became tight'
ndiitipatiy-in tiirppu keeT-T-a uTan avan mukam kavalaiy-aal iRuk-iy-atu
judge's verdict listen-PAS-ADJP immediately his face sorrow-INS harden-PAS-3NS
'His face became hard as soon as he listened to the judgement'

The verb *uRai* which prototypically denotes 'hardening of water, oil, blood, etc.' extends its meaning to denote 'become a mentaly frozen.'

avaL irav-il alaR-um kural keeT-Tu payatt-aal uRai-ndt-aaL
she night make-loud-noise-ADJP voice hear-ADVP fear-INS freeze-PAS-3FS
'She became frozen by hearing a load noise at night'
avaL mukatt-il payam-um kavalaiy-um uRai-ndtu kiTa-ndt-ana
her face-LOC fear-CON sorrow-CON freeze-ADVP lie-PAS-3NP
'Her face was frozen with fear and sorrow'

3.3.3.2. Semantic extension of verbs of 'softening'

The verb *uruku* which prototypically means 'melt as butter, ice, metal, etc. by heat' extends its meaning to denote the state of mind like 'become moved, melt as heart, relent, languish, etc.'

ezhaikaL kashTappaTuv-at-aip paar-ttu avan manam uruk-in-aan
poor-people suffer-GER-ACC see-ADVP he mind/heart melt-PAS-3MS
'His was moved by seeing the sufferings of poor people'
avan avaL-ai ndinai-ttu uruk-in-aan
he she-ACC think-ADVP melt-PAS-3MS
'He languished by thinking about her'

The verb *iLaku* which primarily means 'start to melt as tar, wax, jiggery, etc.' extends it's of meaning to denote 'start melting as heart'.

avan tan manaivi azhu-vat-aip paar-ttu manam iLak-in-aan
he his wife weep-GER-ACC see-ADVP heart melt-PAS-3MS
'He became soft by seeing his wife weeping'

The verb *ndekizh* which primarily means 'become lose' extends it meaning to denote 'be moved, grow tender etc.'

avarkaL cey-t-a peerutaviy-aik kaN-Tu avan manam ndekizh-ndt-aan
they do-PAS-ADJP great-help-ACC see-ADVP heart become-lose-PAS-3MS
'He was moved by seeing the great help given by them'

The verb *karai* which primarily means 'dissolve like salt, melt like ice' extends its meaning to denote 'become kind hearted'.

avaL-atu kaNNiir avan-atu manatt-aik karai-tt-atu
her tears his heart-ACC melt-PAS-3NS
'Her tears melted his heart'

3.3.4. The semantic extension of verbs of change of colour

The verb *veLu* 'become white', *veLiRu* 'become pale', *kaRu* 'become black', *civa* 'become red', and *ndarai* 'become grey' are grouped as verbs of change of colour. They extend their meaning to denote certain feelings.

The verb *veLu* and *veLiRu* which primarily means 'become white' extend their meaning to denote the meaning 'become white as face due to fear' when collocated with *mukam* 'face'.The turning of face white metaphorically means 'feel fear'.

payatt-aal avaL mukam veLu-tt-atu
fear-INS she face become-white-PAS-3NS
'Her face become pale due to fear'
payatt-aal avaL mukam veLiR-iy-atu
fear-INS she face become-white-PAS-3NS
'Her face become pale due to fear'

The verb *kaRu* which prototypically means 'become black' extends its meaning to denote 'become black as face due to fear, shame, dishonour, disgrace, etc.' when collocated with *mukam* 'face'. The turning of face black metaphorically denotes 'feeling ashamed, etc.'

avan con-n-at-ai-k kee-TTu avamaanatt-aal avaL mukam kaRu-tt-atu
he say-PAS-GER-ACC hear-ADVP shame-INS her face become-black-PAS-3NS
'Her face became dark due to shame by hearing what he said'

The verb *civa* which prototypically means 'become red' extends its meaning to denote 'face turning read due to shyness, fear, etc.' when collocated with *mukam* 'face'. The turning of face red metaphorically denotes 'feeling angry, shy, etc.'

tan kaatalan-aip paar-ttt-a uTan veTkatt-aal avaL mukam civa-ndt-aaL
her lover-ACC see-ADJP immediately shyness-INS she face become-red-PAS-3FS
'Her face turned red due to shyness by seeing her lover.'
avan con-n-at-aik keeT-T-at-um koopatt-aal avaL mukam civa-ndt-atu

he say-PAS-GER-ACC hear-PAS-GER-IMM anger-INS her face become-red-PAS-3NS
'Her face became red due to anger by hearing what he said'

3.3.5. The semantic extension of verbs of change into pieces or verbs of breaking

The verbs included under this heading denote the change of state of the objects into pieces (small or big). The verbs *oTi* 'break like a stick and the like', *ndoTi* 'break like stick and the like', *muRi* 'break like tree and the like', *piTu* 'break like a biscuit and the like', *aRu* 'break like thread, etc.' *uTai* 'break like a pot and the like', *ndungku* 'break into small pieces', *iTi* 'break into small pieces', *takar* 'break into small pieces', *taviTupoTiyaaku* 'break into small pieces', *peyar* 'break', *kiiRu* 'tear', *piLa* 'split', *piy* 'tear', *veTi* 'burst', *poTTu* 'burst like a *baloon'*, *arai* 'be crushed', *nduNungku* 'be crushed', *maci* 'be crushed into pieces', *catai* 'be crushed', *citai* 'be crushed', and *ndacungku* 'be crushed'.

3.3.5.1. The semantic extension of verbs of BREAKING to denote emotions

The CMTD has listed nine senses for the verb *uTai* 'break'. They listed below.

1. Break into pieces when an object is pressed with force
2. Break into pieces when an object is dropped below
3. Burst as tube, blood vessel due to pressure from inside
4. Breach as bank of a river, etc.
5. Split as a party, organization, etc.
6. Burst as a boil
7. Break as voice due to emotion
8. Become broken, become heart broken
9. Be revealed/opened as a secret

The senses from one to six denote the breaking of objects into pieces. The other three are metaphorical extensions. The seventh and eighth are semantic extension of *uTai* to denote emotions. Here in these cases, the verb *uTai* collocates with *kural* 'voice' and *manam* 'heart' to express the emotions.

cookatt-aal avaL kural uTai-nd-atu
grief-INS her voice break-PAS-3NS
'Her voice broke due to grief'
veelai etuvum kiTaikk-aat-at-aal avan manam uTai-ndt-aan
job something get-not-GER-INS his heart be-broken-PAS-3MS
'He was heart broken as he did not get a job'

The verb *oTi* which means 'break as stick, branch of a tree, etc.' extends its meaning to denote the emotion of 'being heartbroken' when collocated with *manam* 'heart'. The verb *ndoTi* 'break as stick, branch of a tree, etc.' too extends its meaning to denote the emotion of 'being heart broken' when collocated with *manam* 'heart'.

tan tandtaiy-in maraNac ceytiy-aal avaL manam oTi-ndt-aaL
her father's death news-INS she heart break-PAS-3FS
'She was heartbroken by hearing the news of her father's death'
tan tandtaiy-in maraNac ceytiy-aal avaL manam ndoTi-ndt-aaL
her father's death news-INS she heart break-PAS-3FS
'She was heartbroken by hearing the news of her father's death'

The verb *ndoRungku* which primarily means 'be smashed to pieces' extends its meaning to denote metaphorically 'break as heart' or 'lose heart' when collocated with *manam* 'heart.' In the case of *ndoRungku,* the intensity of feeling greater when compared to *oTi* and *ndoTi*.

aTuttaTutta toolviy-aal avan manam ndoRungk-in-aan
frequent failure-INS he mind be-shattered-PAS-3MS
'He was heartbroken by the frequent failure'

The verb *iTi* which prototypically means 'being collapsed as a building, etc.' extends its meaning to denote metaphorically the emotion 'being heartbroken' when collocated with *manam* 'heart.'

teerv-il tooRRuviT-T-at-aal avan manam iTi-ndt-aan
examination-LOC fail-PAS-GER-because-of his mind be-collapsed-PAS-3MS
'He is heartbroken as he failed in the examination'

The verb *takar* which prototypically means 'being shattered into pieces as a building' extends its meaning metaphorically to denote the emotions such as 'being heartbroken', 'being lost as a belief, confidence, etc.' when collocated with *manam* 'heart'.

taangkav-iyal-aat-a poruL ndashTatt-aal avan manam takar-ndt-aan
tolerate-INF-can-not-ADJP property loss-because-of his mind be-shattered-PAS-3MS
'He became despaired because of the great loss of property.'

It is important to infer here that in all the above cases of the meaning extension the verbs into 'being heart broken' is due to the metaphoric extension of *manam* 'heart' into breakable objects like building, etc.

The verb *piLa* which prototypically means 'be split as a wood' metaphorically extends its meaning to denote the emotion of 'being surprised' when collocated with *vaay* 'mouth'. This meaning is further extended to denote 'be tempted; be persuaded.'

avan andta koopuratta-in uyaratt-aip paar-ttu vaay-aip piLa-ndt-aan
he that tower's height see-ADVP mouth-ACC split-PAS-3MS
'He was surprised by seeing the height of the tower'
avan paNam enR-aal vaay-aip piLa-pp-aan
he money said-if mouth-ACC split-PAS-3MS
'He will be tempted by money'

The verb *piLa* when collocated with the noun *maNTai* 'head' metaphorically extends it meaning to denote 'feeling pain'.

avan-ukkut talaivali maNTaiy-ai-p piLa-kkinR-atu
he-DAT head-ache head-ACC spilt-PRE-3NS
'He has a severe head ache'

The change of state verb *veTi* which prototypically means 'burst with a loud noise' extends its meaning metaphorically to denote the forceful expression of emotions such as anger.

avan koopatt-aal veTi-tt-aan
he anger-by burst-PAS-3MS
'He burst out of anger.'

3.3.5.2. The table consolidating the semantic extensions of the verbs of CHANGE OF STATE

As we have seen above the verbs of CHANGE OF STATE extend their meaning to move into the domain of EMOTION/FEELING. The following table will explicate this statement.

Verbs of change of state	Feeling or emotion
vaaTu 'wither'	Become sad
kaay 'become dry', *ular* 'become dry' *varaL* 'become dry'	Feel dry in the throat
kaay 'become dry'	Feel hungry
taNi 'become cold'	Become pacified as of anger, thirst, etc.
kaLir 'become cold'	Become satisfied or pleased
aaRu 'become cool'	Become cool as heart
iRuku 'become hard'	Become hard as heart
kaTinamaaku 'become hard'	Become hard as heart
uRai 'freeze'	Become frozen as heart
iLaku 'melt'	Become melted as heart
ndekizh 'melt'	Become melted as heart
civa 'become red'	Become angry or shy
kaRu 'become black'	Become angry, become vexed
veLiRu 'become white'	Become fearful, become disappointment
oTi 'break'	Become vexed
ndoTi 'break'	Become vexed

Verbs of change of state	Feeling or emotion
uTai 'be broken into pieces'	Become heart broken or vexed
ndoRungku	Become heart broken or vexed
veTi	Become angry
takar	Become vexed
piLa	Feel pain

3.4. Semantic extension in Verbs of impact

The verbs grouped here denote actions in which the objects undergo impacts without leading to any pertinent change of state. The verbs grouped here are *aTi* 'beat', *aRai* 'beat', *taLLu* 'push', *puTai* 'smash', *kuTTu* 'knock', *taTTu* 'knock', *muTTu* 'colide', *mottu* 'beat', *iTi* 'pounce' and *koTTu* 'knock'.

Let us look at one verb, say for example *aTi* 'beat' and see how it expands its meaning. The CMDT has separated the meaning of *aTi* into 32 senses which are grouped into five sets. As we explained in the ripple analogy the senses which fall under the first four groups (22 senses can be driven back to the prototypical meaning 'beat'. The rest 11 meanings are grouped under idiomatic usages. Let us list the five groups and try to understand the meaning expansion.

a. The usages of beating something with hand or stick and strike something against something.
b. Striking such as sun shine, cyclone, smell, cold wind, etc.
c. Forcefully make to go inside
d. Idiomatic usages

The extension of meaning of *aTi* is discussed elaborately in the next chapter under the heading *aTi*.

Rajendran (1978) classified the semantic extension of *aTi* into 9 groups (here extended to 12 groups) based on its collocation with the complementing objects.

No	Extension type based on collocation	The complementing object	The resultant verbs
1	Striking activity	*muttirai* 'stamp', *accu* 'print, *veLLai* 'white', *caayam* 'paint', *oTTaTai* 'spider web', *muTTai* 'shaved head'	*muttirai-y-aTi* 'frank or stamp', *accaTi* 'pint', *veLLai-y-aTi* 'white wash', *caayamaTi* 'paint', *oTTaTaiyaTi* 'remove spider webs with stick or broom', *moTTaiyaTi* 'shave head'

No	Extension type based on collocation	The complementing object	The resultant verbs
2	Piston like activity	*kaaRRu* 'air', *marundtu* 'insecticide', *haaran* 'horn'	*kaaRRaTi* 'pump air', *marundtu aTi* 'spray insecticide', *haaranaTi* 'horn'
3	Movement	*karaNam* 'somersault', *kaN* 'eye', *ndiiccal calaam* 'salute', *ndiiccal* 'swim'	*karaNam aTi* 'somersault', *kaNNaTi* 'wink', *calaam aTi* 'salute', *ndiiccal aTi*
4	Getting forcefully	*koLLai* 'plunder'	*koLLai aTi* 'plunder'
5	Consume	*taNNi* 'water', *marundtu* 'poison'	*taNNiyaTi* 'consume alcohol', *marundtaTi* 'consume poison'
6	Communication	*katai* 'story', *araTTai* 'conversation'	*kattaiyaTi* 'lie', *araTTaiyaTi* 'converse'
7	Emit as smell, sound	*haaran* 'horn', *ndaaRRam* 'bad smell', *maNam* 'good smell'	*haaran aTi* 'horn', *ndaaRRam aTi* 'emit bad smell', *maNamaTi* 'emit good smell'
8	Nature's activity	*kaaRRu* 'wind', *puyal*, *veyil* 'sunshine', *kuLir* 'cold', *ndilavu* aTi 'shine as moon', *mazhai* 'rain', *caaral* 'drizzle', *veppam* 'hotness'	*kaaRRu aTi* 'blow as wind', *puyal* 'cyclone' *veyil aTi* 'shine as sun, *ndilavu aTi* 'shine as moon' , *mazhaiyaTi* 'rain', *caaralaTi* 'drizle', *veppam aTi* 'emit hotness'
9	Sprout	*taLir* 'tender leaf', *kuruttu* 'sprout'	*taLiraTi* 'come out as tender leaf', *kuruttuviTu* 'sprout'
10	Unexpected event	*laaTTari* 'lottery', *yookam* 'fortune', *shaak* 'shock'	*laaTTariyaTi* 'win lottery', *yookamaTi* 'become lucky', *shaakaTi* 'have a shock'
11	Act badly	*kuuttu* 'acting'	*kuuttaTi* 'behave elated',
12	Threshing activity	*cuuTu* 'sheaves of corn'	*cuuTaTi* 'thresh sheaves of corn'

3.5. Semantic extension of verbs of perception

Neagu (2013) analyses the meanings of perception verbs in English, Romanian and French, starting from one important tenet of cognitive linguistics: "meanings are motivated and grounded more or less directly in experience, in our bodily, physical and social/cultural experiences, and then elaborated by the cognitive process of metaphor." Neagu (2013) presents from a cognitive linguistic perspective the polysemous meanings of prototypical verbs from the semantic field of perception.

The domain of physical perception is polysemous because it does not only refer to physical perception itself, but also extends its meaning to other domains of experience such as knowledge, reasoning, emotion, etc. Therefore, internal mental processes such as cognition and affection, thinking and emotion are metaphorically represented as perceptual processes. The first of this, COGNITION IS PERCEPTION, is extremely prolific in terms of lexis, especially the mapping (i.e. conceptual correspondence) UNDERSTANDING/KNOWING IS SEEING, where SEEING is the source domain and UNDERSTANDING or KNOWING stands for the target domain:

avaL-aal andta ndikazh-ukkaana kaaraNangkaL-ai paar-kka muTi-kiR-atu
she-INS that event-DAT-for reasons-ACC see-ADJP be-able-PRE-3NS
'She is able to understand the reason for that event'

In the case of perception verbs, it seems that these metaphorical mappings take place between two domains: the vocabulary of physical perception (concrete source domain) and the vocabulary of internal self and sensations (abstract target domain) and for the particular case of tactual verbs, between physical touching and emotion.

3.5.1. Sweetser's approach to verbs of perception

Sweetser's (1990) approach of metaphors of perception Sweetser (1990) analyses the semantic extensions of perception verbs in Indo-European languages, from a cognitive and diachronic viewpoint. We can follow Sweetser (1990: 29) taking the MIND-AS-BODY conceptual metaphor as the background of our discussion on semantic extension of verbs of perception. We can assume that this metaphor is motivated by our tendency to derive our vocabulary of the mind from our vocabulary of the body; in other words, we conceptualize one area of experience, i.e. the mind, in terms of another, i.e. the body. Sweetser's view is that this metaphor is probably motivated by the correspondences between our external experience and our internal emotional cognitive states. Another important point is that the correspondences between these two domains of experience are unidirectional: from the vocabulary of bodily experience to the vocabulary of psychological states and not the other way round. The cognitive linguistic view concerning the motivation of polysemy argues that "The vocabulary of physical perception (...) shows systematic metaphorical connections with the vocabulary of internal self and internal sensations. These connections are not random correspondences, but highly motivated links between parallel or analogous areas of physical and internal sensation." (Sweetser 1990: 45)

According to the semantic role of their subjects, perception verbs are classified in three groups: (1) involuntary/passive (or verbs of experience), (2) agentive/active (or verbs of activity), and (3) percept /stimulus subject verbs or copula verbs.

3.5.2. Ibarretxe-Antuñano's (1999) model of polysemy in perception verbs

Ibarretxe-Antuñano (1999), another cognitive linguist, discusses the polysemy of perception verbs synchronically from a typological point of view. She focused on English, Basque, and Spanish. She identifies the advantages and shortcomings of Sweetser's semantic account of perception verbs and Pustejovsky's (1995) Generative Lexicon. She reviews the two approaches and proposes a complementary view. She (Ibarretxe-Antuñano 1999) characterizes the five senses (vision, hearing, taste, touch, and smell) in terms of certain properties. She believes them as the bodily basis of the semantic extensions of perception verbs. She classifies the main properties that characterize the different sense modalities in terms of three parameters. They are (1) the relation between the three main elements in perception: the perceiver (PR), the object perceived (OP) and the act of perception (P); (2) the applicability of the properties of the senses; (3) the interrelation among properties.

3.5.3. The bodily basis of the semantic field of perception

It is claimed in Cognitive Linguistics that the semantic extensions of perception verbs are based on the bodily basis of these verbs (Lakoff and Johnson 1980; Sweetser 1990). But what exactly is the bodily basis for the field of perception is not spelt clearly. Ibarretxe-Antuñano (1999) believes that certain properties as bodily basis of the semantic extensions of perception verbs and she characterizes the five senses such as vision, hearing, taste, touch, and smell in terms of these. The description of these properties is based on physiological and psychological studies on senses. She identifies three parameters to classify the main properties that characterize the different sense modalities. They are the following:

(1) The relation between the three main elements in perception: the perceiver (PR), the object perceived (OP) and the act of perception (P);
(2) The applicability of the properties of the senses;
(3) The interrelation among properties.

She identifies the properties such as contact, closeness, internal, limits and location according to the first criterion. The property 'contact' has a positive value for the senses of touch and taste and has a negative value in the case of the senses of vision, hear and smell. The property 'closeness' has a positive value in the case of the three senses touch, smell, and taste and a negative value in the case of senses vision and hearing. The property 'internal' has a positive value in the case of hearing, smell and taste; and a negative value in the case of senses vision and touch. The property 'limits' refers to whether the perceiver (PR) is aware of the boundaries imposed by the object perceived (OP) when perceived. For example, when we touch something

we are invading the space of that thing/person we are touching. The property 'location', which applies to vision and hearing, refers to whether the perceiver (PR) is aware of the situation of the object perceived (OP) when perceiving. For example, vision gives us information about how far the object perceived (OP) is from the perceiver (PR). In the case of hearing, one can also identify the direction from which sounds are coming (sound localization).

Criterion (2) refers to the distribution of the properties mentioned above in the senses. For instance, the distribution of the properties 'limits' and 'location' is restricted only to some senses, as shown above. Finally, criterion, (3), refers to whether the properties are pure or composite, i.e., whether or not they are the result of the interrelation of several properties. The properties characterizing the source domain of sense perception can explain how some meanings are conveyed by certain perception verbs, and not others. They can also show what elements can take part in the generation of extended meanings. Relative to what and how much information from the source domain (SD) is selected and transferred onto the target domain (TD) Ibarretxe-Antuñano (1999) puts forward the hypothesis of 'Property Selection' which can account for semantic extensions that remain physical.

In previous Cognitive Linguistic literature the mapping process in metaphorical production and comprehension was viewed as being constrained by the so-called 'Invariance Principle' (Lakoff 1993) according to which "metaphorical mappings preserve the cognitive topology of the source domain in a way consistent with the inherent structure of the target domain." (Lakoff 1993: 215). The process called 'Property Selection', reminding, to some extent, of the 'Invariance Principle' states that the properties selected in the target domain must be part of the properties identified in the source domain and no others.

3.5.4. The compositional approach to polysemy

The semantic extensions of perception verbs are constrained by the bodily basis of the source domain from which they originated, structured by metaphor and property selection processes and also triggered by the semantic content of the different elements that co-occur in the same sentence, to a bigger or smaller degree. The relation between the polysemous senses of perception verbs and the semantic content of the co-occurring elements in the construction or sentence is the last issue discussed in Ibarretxe-Antuñano (1999).

Her view is in line with cognitive semantics where the traditional distinction between word meaning (lexical semantics) and sentence meaning (compositional semantics) is not seen as a useful division. Cognitive semanticists argue that while words do have well entrenched meanings, the meaning of any given word is constructed 'online', that is in the context in which it is being used. The principle of compositionality assumes that "words carry meaning in neatly packaged self-contained units and

that meaning construction results from the combination of these smaller units into larger units of meaning within a given grammatical structure" (Evans and Green 2006: 214).

Pustejovky's assumption that a core set of word senses is used to generate a larger set of word senses when individual lexical items are combined with others into phrases and clauses has been used in the case of verbs, where meaning extensions are achieved by the combination of the verb with its arguments.

The close connection between the actual senses of perception verbs and the syntactic configurations they enter has been emphasized in Nicula (2012). The Romanian linguist analyses the semantic field of perception verbs in Romanian by combining the semantic criterion with the syntactic criterion and argues that the meanings of perception verbs depend on the semantic nature of the selected arguments. She also establishes a link between the selected argument type and the different types of perception: physical/cognitive, direct/indirect, concrete/abstract.

Ibarretxe-Antuñano tests the hypothesis that meanings are achieved by the combination of the verb with its arguments in the semantic field of perception verbs and finds that the verb touch can express (1) an activity where contact is implied (e.g. John hardly touched the food) and (2) an accomplishment containing two subevents: an activity and a result (e.g. John touched Mary). In the latter example the verb touch is ambiguous in the sense that John can affect Mary physically (e.g. making her shiver) or metaphorically, that is, affecting her emotionally.

According to the degree of influence that the semantic content of the different lexical items has on the overall meaning, Ibarretxe-Antuñano (1999) identifies three degrees of compositionality:

(a) ambiguous extensions, when it is not possible to predict what the interpretation is by means of argument selection:
 (1) John touched Mary.

(b) verb-driven extensions, when it is the verb that mainly governs argument selection and meaning:
 (2) Mary can smell danger from miles away.

(c) argument-driven extensions, when the meaning is mainly determined by the verb arguments and other elements of the sentence:
 (3) John hardly touched the food.

These three degrees of compositionality relate to 'gradable polysemy', a hypothesis which states that extended meanings are obtained through the interaction of the different elements of a sentence. Ibarretxe-Antuñano's (1999) model of polysemy includes both conceptual polysemy, which is based on the bodily basis of the semantic field under analysis, and gradable polysemy, which is the overt realization of conceptual polysemy.

3.5.6. Classification of verbs of perception

Rajendran (1978, 2001:241-243) has classified verbs of five types based on the body parts concerned with the perception.

1. Perception related to eyes: The following verbs are simply the perception by eyes with certain difference in the manner of seeing: *teri* 'be seen', *pulappaTu* 'be seen' *paar* 'see', *kaaN* 'see', *ndookku* 'look at', *kavani* 'look at', *ndooTTamiTu* 'look at', *tarici* 'to glimpse', *tooRRamaLi* 'appear', *kaNNilpaTu* 'appear', *kaaTcikoTu* 'appear', *kaaTcitaa* 'appear', *tooRRamtaa* 'appear', *taricanamkoTu* 'appear', *kaNvai* 'keep eye on', *kaNpooTu* 'keep evil eye', *kaNpaTu* 'cast evil eye'
2. Perception related to ears: The following verbs can be glossed generally as 'hear' with cetain difference in the manner of hearing: *keeL* 'hear', *kavani* 'hear', *kaatukoTu* 'hear', *cevicaay* 'hear', *cevimaTu* 'hear', *kaatil vaangku* 'hear', *kaataalkeeL* 'hear', *oTTukkeeL* 'hear', *keeLvippaTu* 'hear', *kaatilvizhu* 'hear', *kaatilpooTTukkoL* 'hear', *kaatukoTuttukkeeL* 'hear', *kaatileeRu* 'hear'
3. Perception related to nose: The following verbs can be grouped as verbs related to perception by nose *maNa* 'smell', *mukar* 'smell', *moo* 'smell', *mooppampiTi* 'smell', *ndaaRu* 'smell bad', *ndaRRamaTi* ' smell bad', *maNamkamizh* 'smell good', *vaacanaiyaTi* 'smell good', *vaaTaiyaTi* 'smell bad'
4. Perception related to tongue: The verbs included here are sub-grouped into two: the verbs which take the experiencer as subject and the verbs which take the object as the subject. The verbs *ruci* (tr.) 'taste', *rucipaar* (tr.) 'taste (tr.), and *cuvai* 'taste (tr.)' come under the first group. The verbs *ini* 'taste sweet', *titti* 'taste more sweet', *kaca* 'taste bitter', *kai* 'taste bitter', *kaaRu* 'taste pungent', *uvar* 'taste pungent', *cuna* 'taste pungent', *uppukari* 'taste salty', *uppukai* 'taste salty', *puLi* 'taste sour', *eri* 'taste hot', and *kaandtu* 'taste hot' come under the second group. The former implies the experience of tasting and the latter implies the property of taste.
5. Perception related to sense of touch and pain: The verbs includes perceptions by skins such as *cuTu* 'feel hot', *taNu* 'feel cold', *kuLir* 'feel cold', *viRai* 'feel extreme cold', *kuucu* 'feel delicate', *kamaRu* 'feel irritation sensation in the throat', *kara kara* 'feel some sensation in the throat', *uuru* 'feel itching sensation', *kaTi* 'feel itching sensation', *uRuttu* 'feel irritation sensation in the eyes', *kari* 'feel irritating sensation in the eyes', *kaandtu* 'feel hot sensation', *vali* 'feel pain', *veetanani* 'feel pain', *uLai* 'feel a kind of pain', *kuttu* 'feel pricking sensation', *kaTu* 'feel pain', *paci* 'feel hungry', *tavi* 'feel thirsty'

3.5.6.1 Semantic extension of verbs of seeing

Let us take at least two verbs from the list of verbs of perception and explore their polysemy.

Semantic extension in *teri* 'be seen'

CMTD has listed 5 senses and groped them into two. The first group includes perception by eyes and the second group includes its extension related to intellection.

1. Be visible, be seen
   ing-irundtu paar-taal andta koopuratt-in ucci kaNN-ukkut teriy-um
   here-from see-if that tower-LOC top eye-DAT 'be-visible-FUT-3NS
   'The top of the tower will be visible to eyes if you see from here'
2. See
   andta vayataanavaru-kkuk kaN ndanRaakat teriy-um
   that old-man-DAT eye well see-3NS
   'That old man can see well'
3. Know
   ena-kku avaL-ait teriy-um
   I know she-ACC know-3NS
   'I know her'
4. Be known
   avaL-uTaiya ndilaimai kaTitam muulam terindtatu
   her position letter through be seen-PAS-3NS
   'Her position is known from the letter'
5. Appear
   avan kuuRuv-atu tavaRu enRu teri-kiR-atu
   he say-GER wrong that visible-PRE-3NS
   'What he says appears to be wrong'

The fourth and fifth senses substantiate the prediction that the verbs of perception take us to the domain of INTELLECTION.

Semantic extension in *paar* 'see'

CMTD lists twenty six senses for the verb *paar* 'see' and classifies them into five groups. Seeing the object with shape is listed as the first one which can be considered as the prototypical meaning. The second group of senses is on 'doing some action through seeing'. The third group of senses is the usage is of taking action. The fourth group of senses is the usage related to expressing feeling. The fifth group is concerned with other usages.

Basing his arguments on Ibarretxe-Antuñano (1999, 2002), Neagu says that vision has been studied most among the five senses and that one can find parallels between vision and intellection. A salient characteristic of vison and thought is the ability to pick out one stimulus at will from many. The other characteristic is that the vison gives us data from a distance and intellectual domain is understood as being an area

of personal distance, in contrast to taste or touch that requires actual physical contact with the thing sensed, that is close to intimacy.

The semantic field of sight provides a vast number of extended meanings. Ibarretxe-Antuñano's (1999, 2002) organizes them into four different classes according to the mappings between the (source) domain of physical visual perception and other (target) domains of experience. These categories are: (1) intellect or mental activity (2) social relationships, (3) reliability and assurance and (4) witness and refer to. All these classes can be considered subcases of the MIND-AS-BODY metaphor, a conceptual metaphor "motivated by correspondences between our external experience and our internal emotional and cognitive states". (Sweetser 1990: 30).

The first group of metaphorical extensions is that which relates physical vision with the intellect or mental activity.

1. Understand, fore see
   avaL-ukku enna ndaTakk-um enpat-ai munivar tanatu njaana tirushTiy-aal paar-tt-aar
   she-DAT what happen-FUT that-ACC saint his intellectual-perception-INS see-PAS-3EP
   'The saint understood by his intellectual perception what will happen to her'
2. Imagine, visualize
   ndaan avaL-ai oru aaciriyar-aaka-p paar-kkiR-een
   I she-ACC one teacher-as see-PRE-1S
   'I see her as a teacher'
3. Consider, regard, judge
   ovvoruvarum tangkaL vaazhkkai-yai avarkaL viruppap-paTi paar-kinR-anar
   each-one their life-ACC their like-according-to see-PRE-3EP
   'Each one regards their life as they wish'
4. Revise, study
   ndaan at-ai evvaaRu cariceyy-a veeNT-um enRu paarkka-veeNT-um
   I that-ACC how correct-INF should-do that see-INF-should
   'I should study how to correct that'
   The verb *paar* 'see' acquires meanings pertaining to a wider perceptual domain gradually. Here visual perception is associated with agentive processes such as 'meeting', 'visiting' and 'receiving'. All of these extensions can be referred to as social relationships. In these examples the verb *paar* 'see' expresses physical, direct perception and the perceived entities, marked [+ concrete] are in the visual area of the speaker:
5. Meet
   ndaan unn-ai aindu maNi-kkup paar-kkiR-een
   I you-ACC hour-DAT see-PRE-I
   "I will meet you at five O' clock'

6. Visit
   ndaan en vakkiil-ai paarkk-ap pook-a-veeNTum
   I my lawyer-ACC see-INF go-INF-should
   "I should visit my lawyer'
7. Receive
   TaakTar ungkaL-ai ipootu paar-pp-aar
   doctor you-ACC now see-FUT-3EP
   'The doctor will receive you now'
   A third group of extended meaning of *paar* links vision to reliability and assurance. Nicula (2012) observes that these semantic extensions, relating to the agentive use of seeing usually occur in imperative sentences and that sometimes see functions as a down toner of a directive act.
8. Ascertain/find out, make sure
   andta veelaiy-ai uTanee muTikk-ap paar-u-ngkaL
   that work-ACC immediately finish-INF see-FUT- 2P
   'Make sure that the work is completed immediately'
9. Take care
   avaL kuzhandtaikaL-ai ndanRaakap paar-ttuk-koN-T-aaL
   she children-ACC well see-ADVP-have-PAS-3FS
   'She took care of the children well'
   The fourth group of meanings possible in vision verbs includes witnessing and referring.
10. Witness, come across
    avan tan vaazhkkaiy-il pala iTaiyuuRukaL-aip paar-ttu-viT-T-aan
    he his life-LOC many difficulties-ACC see-ADVP-leave-PAS-3MS
    'He has witnessed many difficulties in his life'
11. Refer
    indta nduul-aip paRRi ndanku aRiy-a munnuraiy-aip paarkk-a-veeNTum
    this book-ACC about well know-INF preface-ACC see-INF-should
    'One should refer to the preface to know the book well'
    In the four major groups of semantic extensions relating to vision that we have identified for Tamil is in parallel with English, French and Romanian found by Neagu (2013).
12. Hear
    In the following instance the sense of seeing is extended to sense of hearing.
    ndii col-v-at-aik paar-tt-aal avan var-a-maaTT-aan enRu toonRu-kiR-atu
    you say-PRE-GER-ACC see-PAS-if he come-INF-not-3MS that appear-PRE-3NS
    'It appears that he will not come if I listened to you'
    The principle of compositionality assumes that words carry meaning in neatly

packaged self-contained units and that meaning construction results from the combination of these smaller units into larger units of meaning within a given grammatical structure.

The verb *paar* 'see' collocates with certain verbs such as *kuur* 'be sharp', *veRi* 'be empty', *muRai* 'be haughty' and *aNNaa* ''hold the face up' in adverbial participle form and acquires special or extended sense as shown by the following example.

1. kuur-ndtu-paar 'look at attentively/sharply'
   avan avaL-aik kuur-ndtu paar-tt-aan
   he she-ACC be-sharp-ADVP see-PAS-3MS
   'He looked at her attentively/sharply'
2. veRittuppaar 'give an empty look'
   avan maNal-ai veRi-ttup paar-tt-aan
   he sand-ACC be-empty-ADVP see-PAS-3MS
   'He gave an empty look at the sand'
3. muRaittuppaar 'stare with at with contempt'
   avan raatai-yai muRai-ttup paar-tt-aan
   he Radha-ACC glower-ADVP see-PAS-3MS
   'He gave a stern look at Radha'
4. aNNaandtu paar 'look up'
   avan vaanatt-ai aNNaandtu paar-tt-aan
   he sky-ACC look-upward-ADVP see-PAS-3MS
   'He looked up at the sky'

In all the above examples, *paar* gives the active sense of looking at and not the passive sense of seeing. The adverbial meaning suppresses or supersedes the perceptual sense. The verbs adhere to the principle of compositionality. The Principle of Semantic Compositionality (sometimes called 'Frege's Principle') is the principle that the meaning of a (syntactically complex) whole is a function only of the meanings of its (syntactic) parts together with the manner in which these parts were combined.The verb *paar* when collocated with certain nouns in object positon, get different interpretation leading to its extension of meaning. The resultant senses are the combination of both noun and the verb and the noun gives the primary sense and the verb gives activity sense.

	Object of collocation	
Examine	*kaireekai* 'lines in the palm'	*kaireekaipaar* 'read palm
"	jaatakam 'horoscope'	*jaatakampaar* 'examine horoscope'
"	*poruttam* 'suitability'	*poruttampaar* 'examine the suitability'
"	*patam* 'quality'	*patampaar* 'examine the quality'

"	*aazham* 'depth'	*aazhampaar* 'examine the depth' (idiomatically means examine or measure one's ability)
"	*ruci* 'taste'	*rucipaar* 'taste'
Find	*mukuurttam* 'time for an auspicious function'	*mukuurttam paar* 'find the auspicious time'
" "	*maappiLai* 'bride groom' *vazhi* 'way'	*maappiLaipaar* 'find out bride groom' *vazhipaar* 'find out means'
Treat	*vaityam* 'medical treatment'	*vaittiyampaar* 'medically treat'
Feel	*irakkam* 'compassion'	*iraakkam paar* 'feel pity'
Do	*veelai* 'work'	*veelai paar* 'do work'
"	*pazhutu* 'repair'	*pazhutu* paar 'repair'
"	*etir*'returns'	*etirpaar* 'expect'

Usage of *paar* as an auxiliary verb

The verb *paar* as an auxiliary verb combines with infinitive form a main verb to denote attempt without accomplishment.

avan raataiy-aik koll-ap paar-tt-aan
he Radha-ACC kill-INF see-PAS-3MS
'He tried to kill Radha'
avaL peenaav-ai tiruT-ap paar-tt-aaL
she pen-ACC steal-INF see-PAS-3FS
'She tried to steal the pen'

The auxiliary *paar* combines with a past participle form of a main verb to denote an attempt with accomplishment. The *paar* in this context acquires different shades of meaning depending on the main verb with which it collocates.

avan paTam varai-ndtu paar-tt-aan
he picture draw-ADVP see-PAS-3MS
'He drew a picture (i.e. practised to draw picture)'
avan andta ndaaval-ai paTi-ttup paar-tt-aan
he that novel-ACC read-ADVP see-PAS-3MS
'He read the novel (to see its worth, etc.)'
avan kaar-ai ooTT-ip paar-tt-aan
he car-ACC drive-ADVP see-PAS-3MS
'He drove the car (to see his capability in driving, or the condition of the car, etc.)'
avan puuv-ai mukar-ndtu paa-tt-aan
he flower-ACC smell-ADP see-PAS-3MS
'He sniffed the flower (to find out its smell, etc.)'

Semantic extension in *kaaN* 'see'

The verb *kaaN* is synonymous with *paar* giving the meaning 'see'. But *kaaN* express more or less a passive perception as opposed to *paar* which expresses an active as well as passive perception. The verb *kaaN* (as well as a *paar* as a passive verb denoting passive perception) stresses the reception of visual impression or of visual impressions. The verb *paar* as a verb denoting active perception stresses on directing of the eyes to something or the fixing of the eyes on something to see it.

avan raataiy-ai vazhiy-il vaittuk kaN-T-aan
I Radha-ACC way-LOC at see-PAS-3MS
'I saw Radha on the way'

CMTD lists sixteen senses for *kaaN* which are grouped into three. The prototypical or primary meaning is given as usages related to perception by eyes. The second one is usages related to experience. The third one is on expectation. The verb *kaaN* when collocated with certain nouns in object positon, get different interpretation leading to its extension of meaning. The resultant senses are the combination of both noun and the verb and the noun gives the primary sense and the verb gives activity sense. The following table will illustrate the point.

Senses	Object of collocation	Collocated form
Dream	*kanavu* 'dream'	*kanavu kaaN* 'dream
Accomplishment	*veRRi* 'success'	*veRRikaaN* 'accomplish success'
"	*toolvi* 'failure'	*toolvikaaN* 'accomplish failure'
Find out	*muTivu* 'end/solution'	*muTivukaaN* 'find out solution'
"	*tiirvu* 'solution'	*tiirvukaaN* 'find out solution'
Experience	*inpam* 'pleasure'	*inpam kaaN* 'experience pleasure'

The negative form of the verb *kaaN*, *kaaNoom* 'not to be seen' is used with the meaning 'not doing', when comes after the infinitive form of a verb. Here it appears that *kaaN* is used as an auxiliary verb.

avaL ingkee var-ak-kaaN-oom
she here come-INF see-not
'She is not (seen) coming'

3.5.6.2. Semantic extension in* keeL *'hear'

The verb *keeL* represents the domain of hearing. It prototypically denotes 'perceive with the ear the sound made by (someone or something)'. We understand hearing

as being universally connected with the internal as well as the external aspects of speech perception. The metaphorical senses of the verbs of hearing can be easily inferred from this understanding. Sweetser (1990: 41) argues that "it is natural that physical auditory reception should be linked with heedfulness and internal receptivity ("not being deaf to someone's plea") and hence also to obedience ...."

Internal receptivity in the sense of understanding what is heard, is certainly often connected with the vocabulary of physical hearing:

ndii col-v-at-ai-k keeT-T-aal avan kuuRu-v-atu cari enRu toonRu-kiR-atu
you say-PRE-GER-ACC hear-PAS-if he say-PRE-GER that appear-PRE-3NS
'If I listen to you it appears that what he said is correct'

Readiness to internally receive and understand involves also a readiness to subject oneself to the speaker's influence and perhaps to respond in desired way. In fact, verbs of hearing by themselves do not mean 'obey' or 'pay attention'. It is in the context of conversation, hence interpersonal relation, that they acquire that meaning.

In both concrete and abstract sense and in all the meanings hearing is said to be the sense of linguistic communication. Therefore, some of the extended senses of hearing are: 'heed'/'pay attention to', and 'to obey'. In Tamil *keeL* is both passive and active; both the active way of hearing 'listen to' and passive way of hearing 'hear' the same verb.

1. Hear by ears passively

avan var-um vazhiy-il oru camptam keeT-T-aan
he come-ADJP way-LOC one sound hear-PAS-3MS
'He heard a sound on the way'

2. Hear by ears actively

avaL aaciriyar viLakku-v-at-ai ndanRaakak keeT-T-aaL
she teacher explain-FUT-GER-ACC well listen-PAS-3FS
'She listned to the teacher's explantion'

3. Heed/'pay attention to'

ndaan kuRu-v-at-ai keeL
'I say-FUT-GER-ACC listen
'Listen to what I am telling you'

4. (listen and) Obey

un ammaa kuRu-v-at-aik keeT-Tu ndaTa
your mother say-FUR-GER-ACC listen-ADVP act
'You act by listening to your mother'

5. 'To be told' and 'to be informed'

The above ones are other extended senses of hearing. But the senses 'to be told' and 'to be informed' cannot be denoted by the verb *keeL*, but by another

verb of hearing *keeLvippaTu* 'be heard' (which is a compound verb of the type 'a noun+verbalizer').

avan ndaaLai ameerikkaav-ukkup poo-kiR-aan enRu keeLvippaT-T-een
he tomorrow America-DAT go-PRE-3MS that hear-PAS-1S
'I heard that he is going to America tomorrow.'

Like the verb of seeing, hearing can have a cognitive sense, i.e. understanding (2). The difference is that hearing is connected with the specifically communicative aspects of understanding rather than with intellection in general, as in the case of seeing. One of the extended meanings of hearing is 'to heed, to pay attention to' (3). A further development of this meaning is that in some contexts the speaker does not only demand attention, but also that the hearer should or shouldn't do what the speaker is telling him to do (4). The meanings 'pay attention to' and 'obey', illustrated in (3) and (4) respectively, involve the use of the agentive (active) counterparts of hearing 'listen to'. This is not surprising, as any act of linguistic communication (the target domain in this case) also involves the feature [+voluntary]. In other words, the property [+voluntary], which is part of the source domain, also characterizes the target domain. This is an instance of 'Property Selection', discussed earlier. As for the meaning 'to be told', 'to be informed', it can be linked with the idea of evidentiality, in the sense that hearing verbs can provide two kinds of evidence: attached or direct when the source of the speaker's information is of a primary source; and indirect reported when the source is of secondary origin, that is hearsay. The contexts provided in (5) exemplify the latter type, i.e. mediated, indirect perception where the verb hear expresses a cognitive act (KNOWING/BEING TOLD IS HEARING) rather than a perceptual act proper.

3.5.6.3. Semantic extension in the sense of touching

Ibarretxe-Antuñano (1998) opines that the sense of touch has always been related to the field of emotions. She convinces her statement by quoting examples from English (I'm deeply touched, touching words). This is true for Tamil too.

avaLuTaiya peeccu en ndenjcait toTTatu
'her speech heart touch-PAST-3NS
'Her speech touched my heart'

Hans Kurath (1921) had already classified sense perception with respect to emotions. He has stated how the kinesthetic, the visceral, and the tactual perceptions have a relatively stronger tone than those of hearing and seeing, smelling and tasting. Kurath explained this transfer of meaning from sense perception to emotion on the basis of the similarity of feeling that both domains share. This connection finds an explanation in etymology as well. Buck (1949:1062) points out that in West Germanic languages the general word for 'feel of' and for 'feel' as 'perceive by touch' refers not only to the physical perception but also to the emotions, even

in the earliest periods of the language. In the 90's, Sweetser (1990) proposed the same mappings between these two domains within the framework of cognitive linguistics. One of the main claims of this model (Johnson 1987, Lakoff 1987, Langacker 1987, 1991) is that linguistic structure is based on human cognition, i.e. on human perception and understanding of the world. As we have already seen the sense of sight and hearing are connected with intellectual processing. The cognitive explanation for the mapping between the source domain of touching and the target domain of emotions is provided in Sweetser (1990: 44). Sweetser points out that "Physical pain of any serious nature is bound to make the subject unhappy emotionally and physical pleasure or well-being certainly promotes a cheerful emotional state". It is interesting to note that the verb of touching not only maps the field of emotions, but also maps other semantic fields. The physical extended meaning 'to partake of food or drink' is exemplified in (1):

1. Partake of food or drink

    1. ndaan andta uNav-ai toTa-villai
    I that food-ACC touch-INF-not
    'I have not touched the food'

The metaphorical extensions such as 'affect', 'reach' and 'deal with' are expressed below.

2. Affect

    avaL veeNTukooL enn-ai aazhamaakat toT-T-atu
    her appeal I-ACC deeply touch-PAS-3NS
    'Her appeal touched me deeply'

3. Reach

    avan tan tozhil-il uyar-ndt-a iTatt-ait toT-T-aan
    he his career-LOC highest place-ACC touch-PAS-3MS
    'He reached the highest position in his career'

4. Deal with

    ndaan andta cikkal-ait toTa-maaTT-een
    I that problem-ACC touch-INF-not-1S
    'I will not deal with that problem'

The sense 'partake of food or drink' can occur in argument driven expression (1) and sense 'affect' occurs in verb-driven expression (2). In other words, the same elements were crucial in the lexicalisation of meanings in Tamil. The compositionality (the co-occurring elements) plays a part in the proper interpretation.

3.5.6.4. Semantic extension in smelling verbs

The sense of smell is considered a weaker source domain for metaphorical meanings in comparison with the other senses. Sweetser (1990: 43) takes the view that this sense "has fewer and less deep metaphorical connections with the

mental domain than the other senses". The verb *mukar* simply means 'smell' by the sense organ nose. But *mooppampiTi* which denotes the active way of smelling, that is sniffing, has at least two metaphorical senses: 'suspect' (3) and 'to guess beforehand, to sense something intuitively' (4) apart from its physical meaning (2).

1. Smell

avan andta puuv-ai mukar-nd-aan
he that flower-ACC smell-PAS-3MS
'He smelled the flower'

2. Sniff

pooliis ndaay mooppampiTi-ttu andta kolaikaaran-aik kaNTupiTi-tt-atu
police dog sniff-PAS-ADVP that murderer -ACC find-PAS-3NS
'The police dog found out the murderer by sniffing'

3. Suspect

avan andta oppandtatt-il uuzhal-ai mooppampiTi-tt-aan
he that dealing-LOC corruption sniff-PAS-PAS-3MS
'He suspected corruption in the dealing'

4. Guess beforehand, sense something intuitively

ndaan cinimaav-ukkup poo-n-at-ai avaL eppaTiyyoo mooppampiTi-ttu-viT-T-aaL
I cinema-DAT go-PAS-GER-ACC she somehow sniff-ADVP-leave-PAS-3FS
'She somehow guessed that I went to cinema'

Although sometimes 'guess' and 'suspect' can be taken as synonyms, in the above examples they appear to be different. 'Suspect' always carries a negative meaning, while 'guess' might refer to either something negative or positive.

3.5.6.5. Semantic extension in taste verbs

Taste is a physical sense which seems to be universally linked to personal likes and dislikes or 'tastes' in people's mind. Personal likes and dislikes in other domains - clothing, music, friends - are subjective, in the sense that they are variable across people. The verb *cuvai* 'taste' prototypically means 'feeling tasty by the taste buds in the tongue.'

avan tinpaNTatt-aic cuvai-tt-aan
he eatable-ACC taste-PAS-3MS
'He tasted the eatable'

The extended meanings that taste verbs of taste are:

1. Experience

avan toolviy-in viLaiv-ai cuvai-tt-aan
he failure-POS consequence-ACC taste-PAS-3MS
'He experienced the consequence of failure'

2. Enjoy

avan paNakkaaran-aaka vaazhkkaiy-aic cuvai-tt-aan
he rich-person-as life-ACC enjoy-PAS-3MS
'He enjoyed the life as a rich person'

3.6. Conclusion

The semantic extension of verbal meaning is interesting to study. The meaning extension of verbs is inevitable as there are only a limited numbers of verbs by means of which we need to express innumerable number of verbal concepts. The verbal extensions can be captured by context in which the collocations find a vital part. We tried to capture the semantic or meaning extensions of verbs by cognitive principles. Cognitive semantics offered us cognitive principles to explain the verbal extensions of meaning.

Chapter 4

Semantic change and semantic extension of Tamil verbs based on Principles of Generative Lexicon

Lexical semantics is the branch of linguistics which is concerned with the systematic study of word meanings. Probably the two most fundamental questions addressed by lexical semanticists are: (a) how to describe the meanings of words, and (b) how to account for the variability of meaning from context to context. Computational and theoretical linguistics have largely treated the lexicon as a static set of word senses, tagged with features of syntactic, morphological, and semantic information. Under this view, different word senses have been generally associated with distinct lexical items. But the natural language has not addressed two important issues:

1. The creative use of words in novel context
2. An evaluation of lexical semantic models on the basis of compositionality

The generative lexicon (shortly GL) presents a novel and exciting theory of lexical semantics that addresses the problem of the "multiplicity of word meaning"- that is, how we are able to give an infinite number of senses to words with finite means. As the first formally elaborated theory of generative approach to word meaning, it lays the foundation for an implemented computational treatment of word meaning that connects explicitly to a compositional semantics. In contrast to static view of word meaning (where each is word is characterized by a predetermined number of word senses) that imposes a tremendous bottleneck on the performance capability of any natural language processing, Pustejovsky proposes that the lexicon becomes an active and central component in the linguistic description. The essence of his theory is that the lexicon functions generatively, first by providing a rich and expressive vocabulary for characterizing lexical information; then by developing a framework for manipulating fine-grained distinctions in word descriptions; and finally, by formalizing a set of mechanisms for specialized composition of aspects of such description of words, as they occur in context, extended and novel senses are generated.

Generative lexicon (GL) is a theory of linguistic semantics which focuses on the distributed nature of compositionality in natural language. The first major work outlining the framework is James Pustejovsky's 1991 article "The Generative Lexicon". Subsequent important developments are presented in Pustejovsky and Boguraev (1993), Bouillon (1997), and Busa (1996). The first unified treatment of GL was given in Pustejovsky (1995). Unlike purely verb-based approaches to compositionality, generative lexicon attempts to spread the semantic load across all constituents of the utterance. Central to the philosophical perspective of GL

are two major lines of inquiry: (1) how is it that we are able to deploy a finite number of words in our language in an unbounded number of contexts? (2) Are lexical information and the representations used in composing meanings separable from our common sense knowledge? According to Pustejovsky (1995:5) the most pressing problem in lexical semantics are the following:

- Explaining the polymorphic nature of language
- Characterizing the semanticality of natural language utterances
- Capturing the creative use of words in novel contexts
- Developing a richer, co-compositional semantic representation

4.1. Sense enumerative lexicon

Pustejovsky developed the concept of generative lexicon in contrast to a more traditional kind of lexicon which he calls sense enumerative lexicon (cf. Pustejovsky, James, 1995, p. 39f.).According to (Pustejovsky, 1995:34) "a lexicon is a sense enumeration lexicon if and only if for "every word W in a language L, having multiple senses s1…,sn/S_1.....S_n associated with that word, the lexical entries expressing these senses are sorted as {word sense (Ws_1)……., word sense number (Ws_n)}" This lexicon, termed by Pustejovsky (1995) as "sense numeration lexicon", lists all form–meaning associations in the language. A word form may be associated with one or multiple word meanings where it is said to be polysemous. A word meaning can be expressed or represented by more than one word form where these word forms are said to be synonyms. A sense enumeration lexicon provides a clear framework for lexical representation in which the lexicon remains, as a component of a model of a speaker's linguistic competence, separate and independent from syntactic knowledge. This can be considered as a source of data from the point of view of computational linguistics. Sense enumeration lexicon adopts the standard lexical data structure of category type (CAT) and a basic specification of the genus term (GENUS), as applied to the example showing the structure of contrastive polysemy which can store any relevant information about each sense independently.

In an enumerative lexicon, each word is assigned a literal meaning. Lexical ambiguity is treated by multiple listing of word senses. According to Pustejovsky, the enumerative lexicon model fails to explain a number of linguistic phenomena:

- Sense extension phenomena like metaphor and metonymy
- The creative use of words: how words can take a possibly infinite number of meanings in novel contexts;
- The expression of multiple syntactic forms: the fact that differences in syntactic realisations of words are accounted for by enumerating separate word senses

4.2. The Generative Lexicon Model

The central concern of Generative Lexicon theory is to minimize the need for enumerating word senses by providing operations for deriving and representing most senses for a word from a basic one. This contrasts with sense-enumeration, in which several distinct senses are listed for a particular word. The Generative Lexical model "has settled in the past years

one of the most innovative prospective in lexical semantics". (Saint-Dizier, 1998) Aiming at laying the foundations of a theory of computational semantics, Pustejovsky (1991, 1995) outlines a conservative approach to decomposition, where lexical items are decomposed into structural forms or templates rather than sets of features. This model assumes that all lexical items are semantically active. The main idea of the generative lexicon model is that word senses are highly structured and the meaning of any word is not achieved by simply listing or enumerating its different senses. According to this approach the lexical item is viewed in the context rather than given an exhaustive description. The role played by all lexical items in the overall meaning of the sentence is highly emphasized.

Levels of Semantic Representation

GL was initially developed as a theoretical framework for encoding selectional knowledge in natural language. This in turn required making some changes in the formal rules of representation and composition. Perhaps the most controversial aspect of GL has been the manner in which lexically encoded knowledge is exploited in the construction of interpretations for linguistic utterances. Pustejovsky (2001:56) characterize a generative lexicon as a computational system involving certain levels of representation. Four levels of semantic representation are put forward by Pustejovsky (1991, 1995) to characterize the system of generative lexicon. They are identified as Argument Structure, Event Structure, Qualia Structure and Lexical Inheritance Structur.:

ARGUMENT STRUCTURE: Specification of number and type of logical arguments

EVENT STRUCUTE: Definition of the event type of an expression and its subeventual structure

QUALIA STRUCTURE: A structural differentiation of the predicative force for a lexical item

LEXICAL INHERITANCE STRUCTURE: Identification of how a lexical structure is related to other structures in this type of lattice

A set of generative devices connects these four levels, providing for the compositional interpretation of words in context. Included in these generative operations are the following semantic transformations, all involving well-formedness conditions on type combinations:

TYPE COERCION: where a lexical item or phrase is coerced to a semantic interpretation by a governing item in the phrase, without change of its syntactic type.

SELECTIVE BINDING: where a lexical item or phrase operates specifically on the substructure of a phrase, without changing the overall type in the composition.

CO-COMPOSITION: where multiple elements within a phrase behave as functors, generating new non-lexicalized sense for the words in composition. This also includes cases of underspecified semantic forms becoming contextually enriched, such as manner co-composition, feature transcription, and light verb specification.

a. Argument Structure:

A representation that determines a verb's meaning, defines the number and type of logical arguments and how they can be syntactically realized. A lexical item may have four distinct types of arguments:

- True argument: parameters that are syntactically realized, e.g. 'John arrived late.'
- Default argument: parameters that may not be syntactically expressed, but which participate in logical expression in the structural representation of the meaning of a lexical item, e.g. 'John built the house out of bricks.'
- Shadow argument: parameters that can be found in the lexical item expressed by operations of subtyping or discourse, e.g., 'Mary buttered her toast with an expensive butter.'
- True Adjunct: logical expressions modified by parameters that are part of the situational interpretation, e.g. 'Mary drove to New York on Tuesday.' Pustejovsky (1995)

b. Event Structure:

Event Structure is a representation that defines the type of event of a lexical item or a phrase. Event structure characterizes the event type of a lexical item and its internal structure. "A verb such as build involves a process and a resulting state." (Pustejovsky, 1995:71) Pustejovsky (1991) suggests that events are complex in the sense that they consist of subevents. Verbs and phrases containing verbs belong to either of three different types: they can be states, processes or transitions. Transitions are complex in that they consist of a process and a following state.

c. Qualia Structure:

Qualia Structure essentially determines the meaning of a noun and deals with the different predications possible with a lexical item. It is the most innovative and important part of the generative lexicon model. Pustejovsky (1995) defines qualia structure as the structured representation which gives the relational force of a lexical item. Qualia are those aspects of word meaning that give a lexical item its role in ontology. Qualia structure is claimed to be a system of relations that characterizes the semantics of nominals. It provides four essential aspects or roles of a word's meaning (or qualia) and they are what Pustejovsky termed constitutive, formal, telic, and agentive roles:

1. The formal role (i.e., hierarchical relations) refers to those features that distinguish an object within a larger domain, such as its orientation, magnitude, or shape which, for example, makes a dictionary identified as a kind of a book.
2. The constitutive role (i.e., meronymic relations) refers to the relation between an object and its constituents, such as its material, parts or components, and weight. In this case it indicates that a dictionary constitutes information (about words).
3. The telic role (i.e., functional) refers to the purpose and function of an item, such as the fact that a dictionary exists to be consulted while a novel exists to be read i.e. consulting a dictionary and reading a novel. Accordingly, the telic role represents the purpose behind performing an act and the function or aim which specifies certain activities.

4. The agentive role (i.e., construction/creation) encodes factors involved in the origin or bringing something about. For example, a dictionary comes about from compiling and a novel from writing.

The qualia structure is the core of the generative properties of the lexicon, because it provides a general strategy for creating increasingly specific concepts with conjunctive properties. A simple schematic description of a lexical item α using this representation is shown below:

α

ARGSTR	=	ARG1	=	x
		...		
		CONST	=	what x is made of
QUALIA	=	FORMAL	=	what x is
		TELIC	=	function of x
		AGENTIVE	=	how x come into being

The lexical structure for book as an object can then be represented as follows:

book

		ARG1	=	y:information
ARGSTR	=	ARG2	=	x:phys_obj
				information.phy_obj
		FORM	=	holds (x, y)
QUALIA	=	TELIC	=	read (e, w, x.y)
		AGENT	=	write (e', v, x, y)

Pustejovsky defines the semantics of a lexical item as a structure involving different components. One of these is qualia structure, which is rich and structured representation of the rational force of a lexical item. What is peculiar about GL is that qualia permit a much richer description of meaning than either a simple decompositional view or a purely relational approach to word meaning allow. That is, it expresses different/orthogonal aspects of word meaning instead of a one-dimensional inheritance (even multiple), which can only capture standard hyponymy-hypernymy relations. The adequacy of qualia relations for capturing key aspect of word meaning becomes apparent when consulting dictionary definitions. The elements of meaning easily map on dimension(s) expressed via qualia roles. Furthermore, these relations become particularly crucial for those sense definitions which have an underspecified genus term. Not all dimension of meaning are always explicitly expressed in the definition of a lexical item. Some of them are inherited by virtue of its membership to a semantic type. Although qualia relations easily emerge from dictionary definition, the formal expression of a specific value for a quale is sometimes quite problematic.

4.3. Semantic extension of verbs based on Generative lexicon principles

Taking into account the principles of generative lexicon propounded by Pustejovsky, the semantic extension of meanings has been studied taking the data from Crea's Modern Tamil dictionary (CMTD) (Ramakrishnan 2008). Nearly 28 verbs have been taken from CMTD

and their meanings have tabulated by extracting the participants of actions expressed by verbs such as subject, object, indirect object, location etc. from the examples given for meanings of each verbal entry. The participants are realized as noun phrases (NPs). The verbs such as *acai*[1] 'move' , *acai*[2] 'cause to move', *anjcu* 'be afraid of', *aTangku* 'subside', *aTakku* 'control', *aTi* 'beat', *aTai*[1] 'get' and *aTai*[2] 'confine', *aNi* 'wear', *aNai*[1] 'be extinguished' and *aNai*[2] 'extinguish', *aNai*[3] 'embrace', *amai*[1] 'be established', *amai*[2] 'establish', *aaTu* 'move', *aaTTu* 'shake', *izhu* 'pull', *iir* 'attract', *uTai* 'be broken', *uTai* 'break', *uuRu* 'secrete', *uuRRu* 'pour', *eTu* 'take', *eeRu* 'climb', *eeRRu* 'load', *ooTu* 'run', *ooTTu* 'cause to run', *kaTTu* 'construct', *kalai* 'become disorderly', *kalai* 'change the order', *ceer*[1] 'join', *ceer* 'assemble', *taTTu* 'pat' *ndaTa* 'walk' have been selected from CMTD. From the meanings of each verb and taking into account the participants of the action such as subject, object, indirect object, location etc. realized as NPs, the sematic features of the participants are studied and the polysemy and semantic extension of the verbs are plotted and given explanation from the point of view of Pustejovsky.

4.3.1. acai *'shake'*

CMTD has dealt with the word *acai* into three entries. The first two entries are verbs. The third entry is noun. The first entry is intransitive and the second entry is transitive.

acai[1]

CMTD has listed four senses for *acai*[1]. In the table given below, the senses are listed with examples and the examples are analysed based on the argument structure of the verb.

No.	Senses	Example	Arguments		
			Subject	Cause	Location
1	Gently sway, stir, move, shake	*kaaRR-il kiLaikaL acai-kinR-ana* Wind-Loc branches sway-PRE-3EP 'The banches are swaying in wind'	*kiLaikaL* 'branches'	*kaaRRil* 'in wind'	
2	Move	*avar teer maatiri ndakar-ndtu poo-kiR-aar* he chariot like move-ADVP go-PRE-3EP 'He is moving like a chariot'	*avar* 'he'/ *teer*'chariot'		
3	Budge, yield (from decision, principle, etc.)	*ammaa evvaLavoo keeTTup paar-tt-um appaa acaiy-av-illai* mother so-much ask-ADVP see-ADVP-EMP father move-not 'The father does not yield though mother asked him several times'	*appaa* 'father'		

No.	Senses	Example	Arguments		
			Subject	Cause	Location
	Move as some body parts	*taaTai acaiy-aamal peeca iyal-aatu* jaw move-not speek-INF be-possble-not 'One cannot speak without moving jaw'	*taaTai* 'jaw'		

The senses 1, 2 and 4 denote real movements. The third one is an abstract movement where the movement is felt metaphorically. As we can understand from the examples, it is the semantic features of the arguments decide the sense of the verb. The semantic extension or change can be depicted by the semantic features of the subject argument. The four senses listed in CMTD can be analysed as follows

acai
- Real movement
  - 1. Shake – Subject: Objects like branch, head, etc.
  - 2. Move – Subject: Objects like Temple-chariot
  - 3. Move – Subject: Object like jaw (as part of face)
- Metaphorical movement
  - 4. Change – Subject: one's principle, determination, decision, etc.

The four senses listed above are only focal points of a range of possible senses. The principles of generative lexicon can help us to capture this generative nature of lexical items. The principles adopted here should explain the limitless possibilities of senses denoted by the verb and at the same time limit the number of senses listed in the CTMD. The verb as an intransitive verb takes only one argument (subject) and the argument frame work will be as follows:

acai[1] [NP—]

The four levels of semantic representation such as argument structure, event structure, qualia structure and lexical inheritance structure complemented by the three mechanisms of compositionality such as co-composition, coercion and subselection capture the generative mechanism of meaning extension of lexical items.

***acai*[2]**

CMTD listed verb listed four senses for *acai*[2]. In the table given below the senses are listed with examples and the examples are analysed based on the argument structure of the verb.

No.	Senses	Example	Arguments	
			Subject	Object
1	Shake, nod, wave	1. *kampatt-ai acai-ttu pi Tungk-in-aarkaL* pole-ACC shake-ADVP pull-PAS-out-3EP 'They pulled out the pole by shaking.' 2. *cammatatt-ukku aRikuRiy-aaka talaiy-ai acai-tt-aan* agreeing-DAT as-a-sign head-ACC shake-PAS-3MS 'He shook his head as a signal for agreement' 3. *kuTiyaracut talaivar-ai kuzhandtaikL koTi acai-ttu varaveeR-R-anar* President-ACC children flag wave-ADVP welcome-PAS-3P 'The children welc omed the president by waving the flags'	1. *avarkaL* 'they' 2. avan 'he' 3. *kuzhandtai* 'children'	1. *kampattai* 'pole' 2. *talaiyai* 'head' 3. *koTi* 'flag'
2	move (an object)	*indta kanamaana peTTiy-ai oru aaL-aal acaika muTiy-aatu* this heavy box-ACC one person-by move-INF be-possible-not 'It is not possible to move the heavy box'	*oru aaL* 'one person'	*kanamaana peTTiyai* 'heavy box'
3	Move, cause (something) to function	*kaikaalkaL-ai acaikk-a i Tamillai* hands-legs-ACC move-INF place-not 'There is no place to move hands and legs'	(Someone)	*kaikalkaLai* 'hands and legs'
4.	Break (one's hope, faith, etc.)	*avar-uTaiya uRutiy-ai acaikk-a kuuTiy-a candtarppam eeRpaT-T-atu* his determination-ACC shake-INF be-possible-ADJP opportunity get-PAS-3NS 'There arose an opportunity to break his determination'	(Someone)	*uRutiyai* 'determination

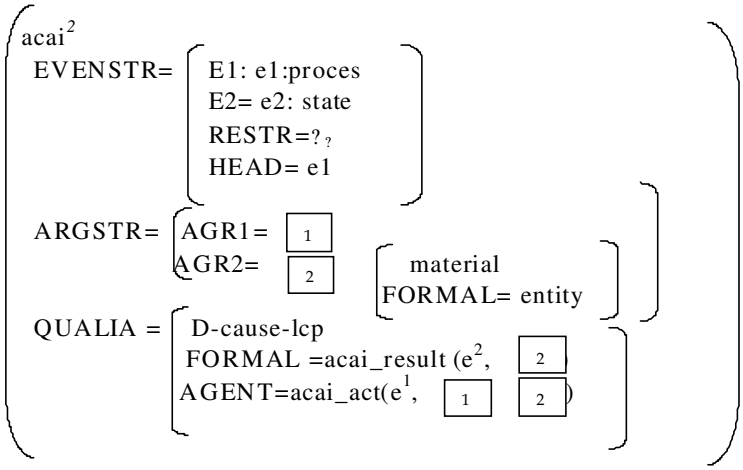
The first three senses are real moments. The fourth one is metaphorical. The senses can be analyzed as follows:

*acai*2
- Real movement
  1. shake – Object: pole, head, etc.
  2. Move (an object) – Object: heavy object like a box
  3. Move (something), cause something to function: hands and legs
- Metaphorical movement

The verb *acai*^{2} takes at least two arguments: subject and object. The subject is the executer of the action and the object is the entity that is moved. The argument frame work is given below:

acai^2 [NP + NP-*ai*]

The semantic extension can be captured by the semantic features of the arguments, especially of the object. According to the principles of generative lexicon propounded by Pustejovsky the argument structure, event structure, qualia structure (formal role, constituent role, telic role and agent role), lexical inheritance structure and complemented by the three mechanisms of compositionality such as co-composition, coercion and subselection capture the generative mechanism of meaning extension of lexical items. The following will represent the verb *acai*^{2} based on principles of generative lexicon.



The above noted framework of the transitive verb *acai*^{2} in which e^1 denotes the process and e^2 denotes the state. The state e^2 is the resultant of the process e^1. The argument structure contains ARG^1 which is subject and AGR^2 which is the object of the verb *acai*^{2}. The selection of the object extends the meaning of *acai*^{2}.

4.3.2. aTangku

CMTD listed eight senses for the intransitive verb *aTangku*. They are tabulated below with examples and analysis based on the argument structure of the verb.

Table no

S.No	Senses	Example	Arguments	
			Subject	**Location/ other arguments**
1	Subdue,diminish (anger, thirst, desire, speed, etc.)	*avaLuTaiya aaveecamum paTapTappum innum aTangka-villai.* her anger and palpitation still subdue-INF-not 'her anger and palpitation are not yet subdued'	*avaLuTaiya aaveecamum paTapaTappum* 'her anger and palpitation'	
2	Remain within (without being expressed)	*keeLvi manat-il ezhu-ndt-a veekatileeyee aTangkiviT-T-atu* question mind-LOC rise-PAS-ADJP speed subdue-PAS-ADVP-leave-PAS-3NS 'The question remained within sooner it is raised in the mind'	*keeLvi* 'question	*manattil* 'in mind'
3	Cease as breath	*muuccu aTangk-um varai tan makan ndinaivaakavee iru-ndt-aar* breath subdue-FUT till his son's memory be-PAS-3EP 'He was in his son's memory till his last breath'	*muuccu* 'breathe'	
4	Cease as noise, voice	*kaalai ndeera oocaikaL oruvaaRu aTangkiviT-T-ana* morning time sounds somehow ceased Some how the 'morning sounds ceased' *avaL-atu kural aTangk-i olit-t-atu* her voice sudue-ADVP hear-PAS-3NS 'Her voice is heared sudued'	1. *oocaikaL* 'sounds' 2. *avaL-atu kural* 'her voice'	
5	Be included, consists of, constitute, be within (bounds or limit), contain	1. *potu uuzhiyar enRa viLakkatt-il ndakaracapai aaNaiyaa Lar-um aTangku-v-aar* general servant that definition-LOC municipal-council commissioner-also be-include-FUT-3EP	1. *ndakaracapai aaNaiyaaLar* 'municipal commissioner' 2. *muttirai ndaa NayangkaL* 'seal-coins'	1. *potu uuzhiyar enRa viLakkattil* in 'the definition of general employee' 2. *putaiyal* 'teasure'

S.No	Senses	Example	Arguments	
			Subject	**Location/ other arguments**
		'The municipal commissioner also included in the definition of general employee' 2. *muttirai ndaaNayangkaL aTangk-iy-a oru putaiyal akappaT-T-atu* 'seal-coins include-PAS-ADP one treasure get-PAS-3NS 'A treasure containing seal-coins is got' *un keeLviyileeyee patilum aTangkiyiru-kkiR-atu* your question-LOC answer-also cotain-PRE-3NS 'the answer is contained in the question itself' *aaval kaTTukkuL aTangk-a-villai* eagerness boundary contain-INF-not 'The eagerness is not contained within the bound'	3. *patil* 'answer'	3. *keeLvi* 'question'
6	Be contained in (within a given space)	*kaikk-uL aTangku-kiR-a aLavuLLa maampazham* hand-inside contain-PRE-ADJP size mango fruit 'the mago fruit which is contained within the palm'	*maampazahm*	*kaikkuL* 'inside hand'
7	Submit onself to; be obedient to	*peRRooru-kku aTangk-iy-a paiyan* parents-DAT contain-PAS-ADJP boy 'the boy who is obedient to the parents'	*paiyan* 'boy'	*peRRoorukku* 'to the parents'
8	Be dependent to	*ndashTatt-ai laapamaakkuvat-il taan un tiRamaiyee aTangkiyiru-kkiR-atu* loss-ACC profit-LOC is your efficiency contain-PRE-3NS 'Your efficiency is contained in converting the loss into profit'	*tiRamai* 'efficiency'	*ndashTatt-ai laapamaa kkuvat-il* 'converting the loss into profit'

The prototypical sense of *aTangku* is 'subdue; diminish (anger, thirst, desire, speed, etc.) which is the first meaning given in CMTD. The other senses which can be considered as the range of expansion of this meaning are 'remain within (without being expressed', 'cease as breath', 'cease as noise; be muffled as voice', 'be included; consists of; constitute, be within (bounds or limit); contain', 'be contained in (within a given space)', 'submit oneself to; be obedient to' and 'be dependent to'.

The verb *aTangku* is an intransitive verb. So its meaning extension mainly depends on the sematic features of the NP which acts as the subject of the verb. The other co-occurring words also can decide the sense. Of course, sense section is made based on where the subject entity is contained. All these can be represented as given below:

aTangku [NP + co-occurring words——]
+ Subject + their role
+semantic features +semantic features

The four levels of semantic representation such as argument structure, event structure, qualia structure and lexical inheritance structure complemented by the three mechanisms of compositionality such as co-composition, coercion and subselection can capture the generative mechanism behind the meaning extension of *aTangku*.

4.3.3. aTakku

The transitive form of the verb *aTangku* is given four senses in CMTD. The four senses are given with examples. The examples are analysed based on the argument structure of the verb *aTakku*.

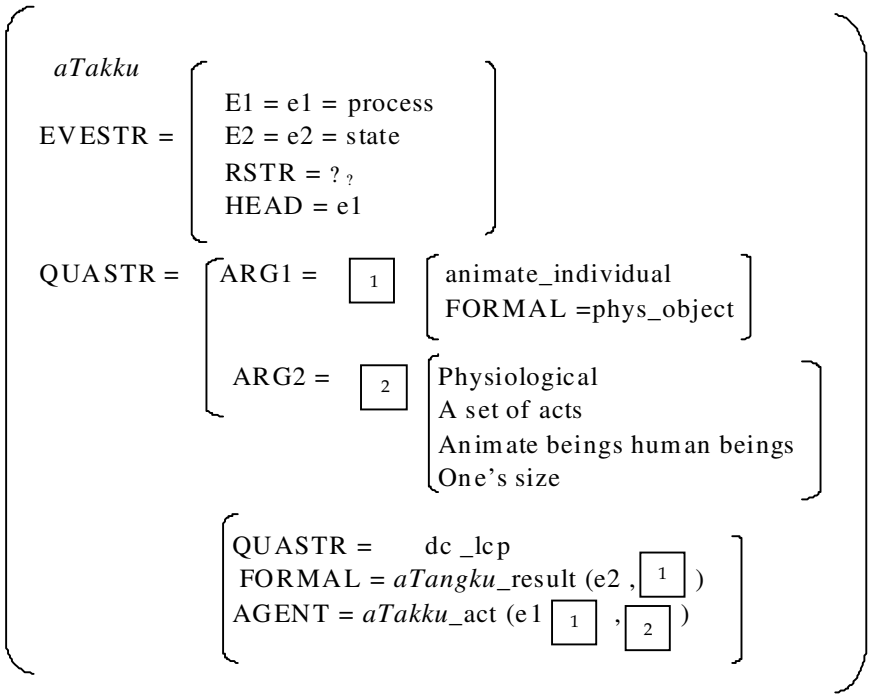
Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ manner
1.	Control, hold back, contain (feelings, emotions, etc.)	1. *avaL-aal azhukaiy-ai aTakk-a muTiya-villai* She-by weeping-ACC contain-INF be-cableINF-not 'She could not control weeping'	1. *avaL* 2. –	1. *azhukai* 'weeping' 2. *muuccu* 'breath'	1. – 2. –
		2. *muucc-ai aTakku-v-ata R-ku payiRci veeNTum* breathe-ACC contain-FUT-GER-DAT training necessary 'Training is needed to hold back the breath'			

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner**
2	Control, condense, abridge	*indta kaTTuraiy-ai oru pakkattiRk-uL aTakk-a muTiy-um-aa?* this article-ACC oru page-inside contain-INF be-possible-FUT-QUE 'Is it possible to condense the article into one page?'		*kaTTuraiyai* 'article'	*oru pakkatti RkuL* 'within one page'
3	Put down, keep under control, tame, subdue	*indta peeTTai rauTikaLai yaaraalum aTakka muTiyavillai* this locality rowdies-ACC contain-INF can-INF-not 'No one can control the local rowdies'	*yaaraalum* 'no one'	*peeTTai raudikaLai* 'local rowdies'	
4.	Keep something stuffed in one's mouth	*vaay-il aTakkikko-NTirundt-a pukaiyilai-yait tupp-in-aan* mouth-LOC contain-ADJP tobacco spit-PAS-3MS 'He spit out the tobacco stuffed inside the motuh'	*avan* 'he'	*pukaiyilaiyai* 'tobacco'	*vaayil* 'in the mouth'

CMTD lists the sense 'control, hold back, contain (feelings, emotions, etc.)' as the primary meaning. The verb expands its meaning to denote 'condense, dense, abridge'. It is further extended to denote 'put down, keep under control, tame, subdue' and 'keep something stuffed in one's mouth'. The verb takes two arguments, the subject argument which causes control and the object argument which is controlled. The semantic features of the subject NP and the object NP brings forth the difference in meaning. This can be depicted as follows.

aTakku [NP + NP-*ai*——]
+subject +object
+semantic features +semantic features

We can capture the generative mechanism behind the meaning extension of lexical items by means of the four levels of semantic representation such as argument structure, event structure, qualia structure and lexical inheritance structure complemented by the



three mechanisms of compositionality such as co-composition, coercion and subselection. The following representation we can depict the meaning extension.

The semantic structure given above denotes that the transitive verb *aTakku* shows that the event structure has e1 as the process and e2 as the state which results from the process. This denotes the instance of being /controlled has resulted from the act of controlling.

4.3.4. aTi

CMTD has six entries for *aTi*: *aTi*[1], *aTi*[2], *aTi*[3], *aTi*[4], *aTi*[5] and *aTi*[6] which are contrastive according to the dictionary. There is one more *aTi* which is considered as a particle. The first entry *aTi*[1] is a verb; the second entry *aTi*[2] is an auxiliary verb. CMTD lists 27 senses for the verb *aTi*[1]. The following table lists these senses with examples which are analysed in terms of argument structure.

Table

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
A. The usages related to beating and being beaten						
1	Beat, hit (with hand or with a cane, etc.)	1. *kuzhandtaiy-ai kaiy-aal-umkamp-aalum aTikk-a-kuu T-aatu* child-ACC hand-INS-CON stick-INS-CON beat-INF-should-not 'A child shoud not be beaten with hand and stick' 2. tangkatt-ai kaaycc-i aTi-ttut takaTaakk-in-aar. gold-ACC melt-ADVP beat-ADVP plate-become-PAS-3EP 'They made the gold into a plate by melting and beating'	1. One 2. he	1. *kuzhand taiyai* 'child; 2. gold	1. *kaiyaal-um kam-paalum* 'by hand and stick'	
2	attack or kill (by striking), strike dead, kill	1. *kaaTT-il aaTumeey-kk-ap poon-a-van-aip puli aTittuviT-T-atu.* forest-LOC goat graze-INF go-PAS-ADJP-3MS-ACC tiger beat-PAS-3NS 'A tiger killed a person who went for grazing the goats' 2. *ndeeRRu viiTT-il oru paamp-ai aTi-tt-oom.* yesterday house-LOC one snake-ACC beat-PAS-1P 'We killed a snake in our house yesterday'	1. *puli* 'tiger' 2. ndaang-kaL 'we' 3. *avarkaL* 'they'	1. *aaTu meeykkap poonavanai* 'he who has gone to graze goat' 2. *paampai* 'snake' 3. *koozhi* 'fowl'		

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
		3. *koozhi aTi-ttu virun-dtu vai-tt-aarkaL* fowl beat-ADVP feast keep-PAS-3HP 'They gave a feast by killing a fowl'				
3	Hit with a stone; pelt	*ciRuvarkaL kall-aal maangkaay-ai aTi-tt-aarkaL.* boys stone-INS mango-ACC beat-PAS-3EP 'The boys hit the mango with a stone'	*ciRuvar-kaL* 'boys'	*maankaayai* 'mango'	*kallaal* 'by stone	
4	Drive (a nail, etc.)	*maaTTuk kuLamp-il aaNi aTi-ttu laaTam kaTT-in-aarkaL.* cattle hoof-LOC nail beat-ADVP horse-shoe fit-PAS-3EP 'They fit the horse shoe by driving the nail on the hoof of the cattle.'	*avarkaL* they	*aaNi* 'nail'		*maaTTuk kuLampil* 'on the hoff of the cattle'
5	Make a sound by striking; ring	*koyil maNiy-ai avan kaNakaNavenRu aTi-tt-aan.* temple bell-ACC he loudly beat-PAS-3MS 'He struck the temple bell loudly'	*avan* 'he'	*koovil maNiyai* 'temple bell'	*kaNaka NavenRu* 'loudly'	
6	Ring as a bell; strike as a clock	*kaTikaaram pattu muRai aTi-ttu ooy-ndt-atu* clock ten times beat-ADVP cease-PAS-3NS 'The clock struck for ten times and stoped'	*kaTikaa-ram* 'clock'	*pattumuRai* 'ten times'		

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
7	Flap wings	*paRavai ciRak-ai aTi-ttup paRa-ndt-atu* bird wing-ACC beat-ADVP fly-PAS-3NS 'The bird flapped its wings and flew away'	*paRavai* 'bird'	*ciRakai* 'wing'		
8	Strike (something so as to leave an impression)	*anjcal talaiy-il muttirai aTi-tt-aar.* postal stamp-LCO seal beat-PAS-3EP 'He struck seal on the postal stamp'	*avar* 'he'	*muttirai* 'stamp'		*anjcal talaiyil* 'on the potal stamp'
9	Hit or score a run or point by hitting as in tennis, cricket, etc.	1. *indtiya aNi viirar aTi-tt-a pandtu ellaik kooTT-ai aTai-ndt-atu.* Indian team player beat-PAS-ADJP boundary line reach-PAS-3NS 'The ball struck by the Indian team player reached the boundary'	*indtiya aNi viirar* 'Indian team player'	*pandtu* 'ball'		
B	**The usage related to one's move or result**					
10	Strike; shine (brightly) as sunshine, light, etc.	*mukatt-il cuLiir enRu veyil aTi-tt-atu.* face-LOC severely sunshine beat-PAS-3NS 'The sunshine struck severly on the face'	*veyil* 'sun shine'			*mukattil* 'on the face'
11	Blow (strongly) as wind, smell, etc.)	1.*maNi-kku eNpatu mail veekatt-il puyal aTi-tt-atu.* hour-DAT eighty mile speed-LOC storm beat-PAS-3NS 'The wind blew at a speed of eighty miles per hour'	1. *puyal* 'storm'			*eNpatu mail veeka ttil* 'at a speed on eighty miles per hour'

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
		2. *caakkaTai ndaaR-Ram payangkaramaa-ka aTi-tt-atu.* gutter smell severely beat-PAS-3NS 'The gutter smell blew strongly.'				
12	Beat upon, dash against as waves	karaiy-il alai aTi-kkiR-atu. shore-LOC wave beat-PRE-3NS 'The waves beats upon the shore'	*alai* 'wave'		*karai-yil* 'upon the shore'	
13	Lash or fall as rain	*kooTai mazhai tiTiiren-Ru piTi-ttu aTi-ttu ooy-ndt-atu.* summer rain suddenly start-ADVP beat-ADVP cease-PAS-3NS 'The summer rain suddenly erupted, lashed and stopped.'	*kooTai mazhai* 'summer rain'			
14	Beat as heart	*itaiyam aTi-kkiR-atu.* heart beat-PRE-3NS 'The heart beasts'	*itaiyam* 'heart'			
15.	flutter	*kaRR-il koTi paTapa-TavenRu aTittukkoN-T-atu.* wind-LOC noisily beat-PAS-3NS 'The flag fluttered with noise in the wind'	*koTi* 'flag'		*kaRRil* 'in wind'	*paTapa TavenRu* 'with noise'
C	**The usage related to pressing an act**					
16	Pump in, inflate, pump	1. *kaal pandtu-kku kaa-RRu aTikk-a veeNTum.* foot ball-DAT air beat-INF should 'The air has to be filled inside the football'	1.(some one)	1. *kaaRRu* 'air' 2. *taNNiir* 'water'		1. *kaal pand-tukku* 'to the football'

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
		2. *oru vaaLiy-il taNNiir aTi-ttu vai.* one bucket-LOC water beat-ADVP keep. 'Fill in water in the bucket'	2. (some one)			2. *vaaLiyil* 'in the bucket'
17	Beat, stir (to mix)	*iraNTu muTTaiy-ai aTi-ttu maav-il uuRR-ip picai.* two eggs-ACC beat-ADVP flour-LOC pour-ADVP knead 'Beat two eggs in the flour and knead'		*iraNTu muTTaiyai* 'two eggs'		*maavil* 'in the flour'
18	Print	*kalyaaNappattirikai aTi-tt-aakiviT-T-atu* marriage invitation beat-ADVP-become-PAS-3NS 'The marriage invitation was printed'	(some one)	*kalyaaNa-ppattirikai* 'marriage invitation'		
19.	Set up; pitch (a tent)	*tolporuL aaraaycciy-aaLarkaL kuuTaaram aTi-ttut tangk-in-aarkaL.* archealogists tent beat-ADVP stay-PAS-3HP 'The archealogists stayed by setting up a tent'	*tolporuL aaraaycciy aaLarkaL* 'archea-logists'	*kuuTaaram* 'tent'		
20	Stich (a bag, etc.)	*indta tuNiyil iraNTu pai aTittuk koTu.* this cloth two bags beat-ADVP give. 'Stich two bags out of this cloth and give'	(some one)	*iraNTu pai* 'two bags'		*tuNiyil* 'in cloth'
21	Coat; white wash;paint	1. *cuvar-ukkuc cuN Naampu aTi-kkiR-aan.* wall-DAT lime beat-PRE-3MS 'He is white washing the wall'	1. *avan* 'he' 2. (some one)	1.*cuNNaa mpu* 'lime' 2. *vaNNam* 'paint'		1.*cuvaru-kku* 'to wall' 2. *maaTTu kkompu kku* 'to cattle's horn'

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
		2. *maaTTukkompu-kku vaNNam aTikk-a veeNTum* cattle horn-DAT paint beat-INF should 'The horns of the cattle need to be painted'				
22	Shine on (flashlight)	*paampu iru-kkiR-at-aa enRu viLakku aTi-ttup paar.* snake be-PRE-GER-QUE beat-ADVP see 'Flash the light so as to find the snake'	(some one)	*viLakku* 'flash light'		
D	**Idiomatic usages**					
23	Smoke (bhank); drink (arrack, etc.)	*kanjcaa aTi-tt-a-van-in kaNkaL civandtiru-ndt-ana.* hemp beat-PAS-ADJP-3MS-GEN eyes become-red-PAS-3EP 'The eyes of the peson who smoked hemp became red'	*avan* 'he'	*kanjcaa* 'Indian hemp'		
24	Run (a temperature)	*kuzhandtai-kku iraNTu ndaaLaaka kayccal aTi-kkiR-atu* child-DAT two days fever beat-PRE-3NS 'The child has fever for the last two days'	*kayccal* 'fever'			*kuzhand-taikku* 'to child'
25	Be favoured by luck, fortune	*avan-ukk-um oru muRai atirshTam aTi-tt-atu* he-DAT-also one time luck beat-PAS-3NS 'He was favoured by luck once'	*atirshTam* 'luck'			*avanukku* 'to him'

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
26	Strike off (a name, a word from a list, book, etc.); score out	*paNam celut-aat-at-aal pativeeTT-ilirundu avan peyar-ai aTittuviT-T-aarkaL.* money remit-not-GER-because-of register-from his name-ACC beat-PAS-3EP 'The stuck off his name from the register as he failed to pay the money'	they	*avan peyarai* 'his name'		*pativeeT Tilirundu* 'from the register'
27	Make off with; filch	*kuuTTatt-il en paiy-il iru-ndt-a peenaav-ai yaaroo aTittuviT-T-aarkaL.* crow-LOC my pocke-LOC be-PAS-ADJP pen-ACC someone beat-PAS-3EP 'Somebody has filsched the pen from my pocket in the crowd'	*yaaroo* 'someone'	*peenaavai* 'pen'		
28	Carry (load, sand, bricks, etc.); cart	1. *ndaaLai oru vaNTi maNal aTi-ttu-viTu.* tomorrow one cartfull of sand beat-ADVP-leave 'Tranport one cartful of sand'	*ndii* 'You'	*oru vaNTi maNal* 'one cartfull of sand'		
29	Make (some object to be in a specified state); cause (something to be in the stated condition)	1.*avaL-uTaiya azhaku avan-ai paittiyam-aaka aTi-ttu-viT-um.* her beauty he-ACC as-mad beat-leave-FUT 'Her beauty will make him mad'	1. *avaLu Taiya azhaku* 'her beauty' 2. *avar* 'they'	1. *avanai* 'he' 2. *en patilu kku avaci-yam* 'need for my answer'		1. *paittiya maaka* 'as mad' 2. *en patil-ukku*

Sr. No.	Senses	Examples	Arguments			
			Subject	**Object**	**Instrument/ cause/ /manner**	**Place/ target**
		2. *en patil-ukku avaci-yam illaamal aTi-ttu-viT-T-aar.* my answer-DAT not beat-PAS-ADVP-leave-PAS-3EP 'He made my answer unnecessay'				
30	Spray (pepti-cide, ferti-lizer, etc.)	*caalaiyoorangkaL-il marundtu aTi-tt-aarkaL.* roadside-LOC pesticide beat-PAS-3HP 'They spayed pesticide on the road side'	*avarkaL* 'they'	*marundtu* 'pesticide'		*caalai yoorang kaLil* 'road side'
31	Type (a text, document, etc.)	1. *taTTacc-il ndaanku pakkangkaL aTi-ttu-viT-T-een.* typewriting-LOC four pages beat-ADVP-leave-PAS-1PS 'I typed four pages in the type writer' 2. *kaNippoRiy-il aaRu pakkangkaL maTT-umee aTittiru-ndt-een.* computer-LOC six pages only beat-ADVP-be-PAS-1S 'I typed only six pages in the computer'	1. *ndaan* 'I' 2. *ndaan* 'I'	1.*nda anku pakkan-gkaL* 'four pages' 2. *aaRu pakkan-gkaL* 'six pages'		1 .*taTTa ccil* 'in the type writer' 2. *kaNi - ppoRiyil* 'in the type-writer'
32	Get some-thing done (by the means specified)	*ellooraiyium paNatt-aal aTi-ttu-viT-Tu kaa-riyattai caati-tt-een.* all-person money-INS beat-ADVP-leave-ADVP task-ACC achieve-PAS-1S 'I achieved the task by beating all with money'	*ellooraiyum* 'all'		*paNattaal* 'by money'	

CMTD has grouped the 32 senses into four sets of usages. They are listed below:

1. The usages related to beating and being beaten
2. The usage related to one's move or result
3. The usage incorporating acts which require pressing
4. The idiomatic usages

The first set of senses concerned with 'the usages related to beating and being beaten' contains nine senses (1st to 9th senses). They include 'beat, hit (with hand or with a cane, etc.)', 'attack or kill (by striking), strike dead, kill', 'hit with a stone; pelt', 'drive (a nail, etc.)', 'make a sound by striking; ring', 'ring as a bell; strike as a clock', 'flap wings', strike (something so as to leave an impression) and hit or score a run or point by hitting as in tennis, cricket, etc.'.

The second set of senses concerned with 'the usage related to one's move or result' contains six senses (10th to 15th senses). They include 'strike; shine (brightly) as sunshine, light, etc.', 'blow (strongly) as wind, smell, etc.)', 'beat upon, dash against as waves', 'lash or fall as rain', 'beat as heart' and 'flutter'.

The third set of senses concerned with 'the usage related to pressing an act' contains seven senses (16th to 22nd senses). They include 'pump in, inflate, pump', 'beat, stir (to mix)', 'print', 'set up; pitch (a tent)', 'stich (a bag, etc.)', 'coat; white wash; paint' and 'shine on (flashlight)'

The fourth set of senses concerned with 'the idiomatic usages' contains ten senses (23rd to 32nd senses). They include 'smoke (bhank); drink (arrack, etc.)', 'run (a temperature)', 'be favoured by luck, fortune', 'strike off (a name, a word from a list, book, etc.); score out', 'make off with; filch', 'carry (load, sand, bricks, etc.); cart', 'make (some object to be in a specified state); cause (something to be in the stated condition)', 'spray (pesticide, fertilizer, etc.)', 'type (a text, document, etc.)' and 'get something done (by the means specified)'.

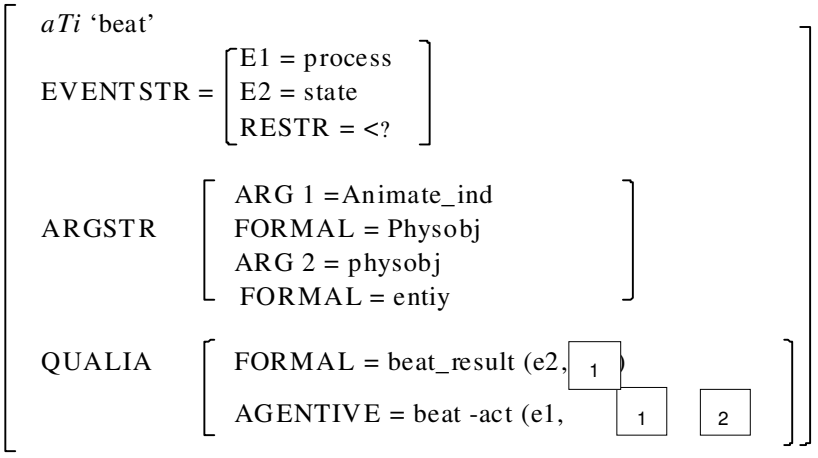
CMTD lists 'beating with hand, stick, etc.' as the prototypical or the primary meaning of *aTi* and the rest of 31 senses as subsidiary ones. Some of the meaning extensions of *aTi* can be explained by cognitive semantic principles. There is no doubt that the meaning expansion of *aTi* into 32 senses is mostly due to psychological or cognitive factors. But if we try to explain the expansions by reasons we may fail. Probably we find the answer in Pushtejovsky's principles of generative lexicon. The senses 1, 2, 3, 4, 5 and 8 are a kind of attacking. This attacking varies due to the nouns which function as the accusative NP or objective NP. The meaning can be derived by making use of the semantic features of the NP which function as object argument. The 7th sense seems to be different; even then it is a kind of movement. Pushtejovksy decomposes the meaning of a verb into subsenses. As we understand, *aTi* consists of many actions in which the movement of the instrument till touches the body is a subevent apart from the main submeaning of touching the object forcefully. The change of the prototypical meaning into the 7th sense is a matter before the touching of the instrument on the object. The 9th to 15th sense can are triggered by the combination of the semantic features of the subject with *aTi*. The 16th to 23rd senses are induced by the semantic features of the object NP with *aTi*. The senses 25 to 26 are selected by the semantic features of the

object and the locative arguments. The 28th sense is unique one; the semantic features of the object NP and other cocombinaions select the sense. The 29th sense is triggered by the semantic features of the subject NP and the co-occurring words. The senses 30th and 31st are the outcome of the semantic features of the object NP and the co-occurring words (denoting location). The following fame can capture the semantic extension of *aTi*.

aTi [NP	+NP-*ai*…..]
+ Subject	+Object
+Semantic features	+Semantic features

Pustejovsky's (1995) generative principle based on event structure, qualia structure (formal role, constituent role, telic role, and agentive role) and lexical inheritance structure complemented by generative operations (type coercion, selective binding and co-composition) that connects the four levels provide the compositional interpretation of verb in the different contexts tabulated above.

The following representation we can depict the meaning extension:



4.3.5. aTai

CMTD has eight entries for *aTai* (*aTai1* to *aTai* 8) based on the contrasting senses of meaning. The first two entries are verbs and third one is an auxiliary verb. The rest of the five entries are nouns. The two entries of *aTai* which function as verbs have been taken for analysis here.

aTai[1]

CMTD lists 7 senses for *aTai*[1]; the following table lists the senses with examples. The examples are analysed based on the argument structure of the concerned verb.

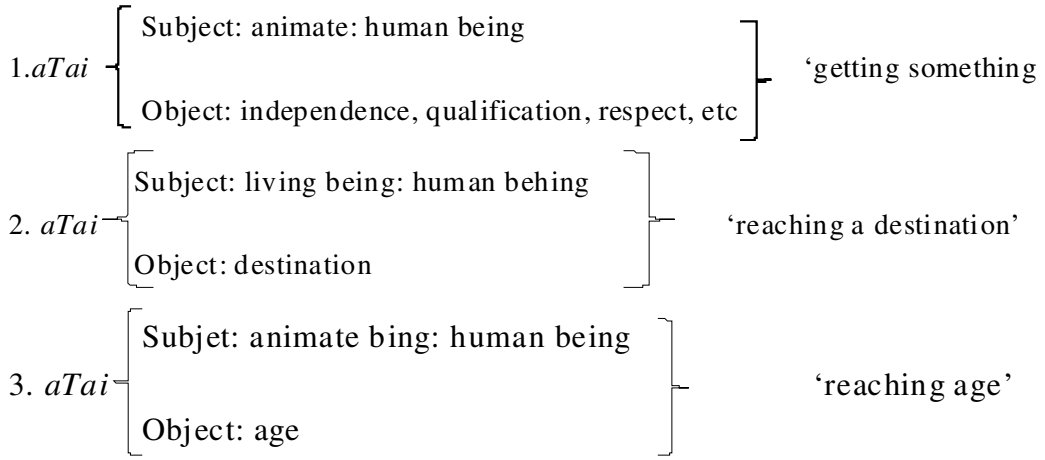
Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner**
1	Attain, get	1. *cutandtiram aTai-ndtu-viT-T-oom.* independence get-ADVP-leave-PAS-1P 'We have attained independence' 2. andta azhakiy-ai aTaiya *palarum pooTTi pooTu-kiR-aarkaL* that beautiful-woman-ACC all-persons competition put-PRE-3HP 'Many competed for getting that beautiful woman' 3. *uzhaipp-aal avar aTai-ndt-iru-kkiR-a takutiyum matippum eeraaLam* hard-work-INS they get-ADVP-be-PRE-ADJP qualification and respect many 'The qualification and respect he has achived by his hardwork are many'	1. *ndaam* 2. *palar* 'many' 3. *avar* 'he'	1. *cudandiram* 'independence' 2. *azhakiyai* 'beautiful woman' 3. *takutiyum matippum* 'qualification and respect'	3. *uzhaippaal* 'by hardwork'
2.	Reach (a destination)	1. *ndiindt-ic cen-Ru karaiy-ai aTai-ndt-aan.* swim-ADVP go-ADVP shore-ACC 'He reached the shore by swimming'	*avan* 'he'	*karaiyai* 'the shore'	
3	Reach (a particular age)	*avar muuppu aTaindtaar* 'He attained old age'	*avar* 'he'	*muuppu* 'old age'	
4	Set (as sun and moon)	1. *ndilaa aTai-ndtu-viT-T-atu* moon get-ADVP-leave-PAS-3NS 'The moon has set'	1. *ndilaa* 'moon' 2. *pozhutu* 'time/ evening'		

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ manner
		2. *avar pozhutu aTai-ndu tirump-i varu-v-aar.* he time/evening get-ADVP retun-ADVP come-FUT-3EP 'He will come back after sun set'			
5	Deposit or collect as dust, dirt	1. *viiTT-il tuuci aTai-kiR-atu* house-LOC dust get-PRE-3NS 'Dust get deposited in the house' 2. *azhukku aTai-ndt-a caTTai* dirt get-PAS-ADJP cloth 'dirty cloth'	1. *tuuci* 'dust' 2. *azhukku* 'dirt'		1. *viiTTil* 'house' 2. *caTTai* 'shirt'
6	Settle as birds; roost as bugs; settle thickly on something	1. *putar-il paampu aTaiy-um* bush-LOC snake get-FUT 'The snake will settle at bush' 2. *cuvarengkum muuTTaip puuccukaL aTai-ndu kiTa-kkinR*-ana all-wall bedbugs get-ADVP lie-PRE-3NP 3. *paRavaikaL kuuTT-ai aTai-ndt-ana* birds nest-ACC get-PAS-3NP 'The birds have reached their nest' 4. *ippootum elloorum amerikkaav-il poo-y aTai-kiR-aarkaL* now all-persons America-LOC go-ADVP get-PRE-3HP 'All are settiling at America'	1. *paampu* 'snake' 2. *muuTTaip `puuccikaL* 'bed-bugs' 3.*paRavaikaL* 'birds' 4. *elloorum* 'all persons'		1. *putaril* 'bush' 2. *cuvareng-kum* 'throughout wall' 3. *kuuTTai* 'nest' 4. *amerik-kaavil* 'in America'

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ manner
7	Be cleared of debt or paid up as debt, arrears, etc.	*iraNTu varuTattiR-ku mun vaangkiy-a kaTan inn-um aTaiy-a-villai.* two years-DAT before get-ADJP debt now-also get-INF-not 'The debt which was incurred two years before is not cleared/paid back'	*iraNTu varu-TattiR-ku mun vaang-kiya kaTan* 'the debt in-curred two years before'		*innum* 'till now'

As we can see form the table CMTD has listed seven senses for *aTai*[1]. They include 'attain; get', 'reach (a destination)', 'reach (a particular age)', 'set (as sun and moon)', 'collect (as dust, dirt)', 'settle; roost (as birds; bugs); settle thickly on something as bugs, etc.', and 'be cleared (as debt arrears, etc.); be paid up'.

The verb *aTai* is prototypically a two place verb expecting a subject and an object to formulate its meaning. The subject is one who gets and object is one which is being got. Prototypically the subject is a human being and object is an inanimate entity or an abstract entity. The subject who is the agent of attaining is in nominative form and the object which is being attained is in the accusative form. In the second sense, the object marked for accusative case is a location where the subject reaches. The third sense is a metaphorical extension of the second one. The senses 4, 5, 6, and 7 are unpredictable and so can be considered as contrastive senses and treated accordingly. Let us try to explain the first three extensions.



Based on Pustejovsky's generative lexicon principle *aTai*[1] can be given the following representation:

$$\begin{bmatrix} aTai \text{ 'get'} \\ \text{ARGSTR=} \begin{bmatrix} \text{AGR1= Individual} \\ \text{D-ARG =y = location} \end{bmatrix} \\ \text{EVENTSTR =} \begin{bmatrix} \text{E1: e1: process} \\ \text{E2 = e2: state} \\ \text{RESTR = <?} \\ \text{HEAD = e2} \end{bmatrix} \\ \text{QUALIA=} \begin{bmatrix} \text{FORMAL = LOC (e2. x,y} \\ \text{AGENTIVE = } aTai\text{_act} \end{bmatrix} \end{bmatrix}$$

The representation should tell us the unlimited number of senses expressed by *aTai*[1] and at the same time make us understand the limited number of senses listed in CMTD. The argument structure, event structure, qualia structure (formal role, constituent role, telic role, agentive role) and lexical inheritance structure along with generative devices (type coercion, selective binding and co-composition) that connects the four levels provide compositional interpretation of the verb in different contexts.

***aTai*[2]**

CMTD has listed 7 senses for *aTai*[2]. The senses are tabulated below with examples. The examples are analysed for argument structure of the concerned verb.

Sr. No.	Meaning	Example	Arguments		
			Subject	Object	Location/ cause/manner
1	Put in (a prison, etc.) confine	1. *pooraaTTa viirarkaL-ai ciRaiy-il aTai-tt-aarkaL* struggle-promoters-ACC prison-LOC confine-PAS-3HP 'They have imprisoned the promoters of the struggle' 2. *teru ndaaykaL-aip piTi-ttu tani iTatt-il aTai-ttu vaitt-aarkaL*	1. *avarkaL* 'they' 2. *avarkaL* 'they'	1. *pooraaTTa viirarkaLai* 'promoters of struggle' 2. *teru ndaaykaL* 'street dogs'	1. *ciRaiyil* 'in prison' 2. *tani iTattil* 'in a separate place'

Sr. No.	Meaning	Example	Arguments		
			Subject	**Object**	**Location/ cause/manner**
		street dogs-ACC catch-ADVP separate place-LOC confine-ADVP keep-PAS-3HP 'They have confined the street dogs in a separate place'			
2	Fill up (a container with liquid); stuff (a bag, etc. with something; occupy a space	1. *tailatt-aik kuppiy-il aTai-tt-aan* medicated-oil-ACC bottle-LOC fill-PAS-3MS 'He filled the medicated oil in the bottle' 2. *talaiyaNaiy*-il *panjc-ai aTai-tt-aan* pillow-LOC cotton-ACC fill-PAS-3MS 'He stuffed the pillow with cotton' 3. *inda pazhangkaL-aip peTTiy-il aTai-ttu anuppu-kiR-aarkaL.* this fruits-ACC box-LOC fill-ADVP send-PRE-3HP 'The send these fruits after filling them in a box'	1. *avan* 'he' 2. *avan* 'he' 3. *avarkaL* 'they'	1. *tailattai* 'medicated oil' 2. *panjcai* 'cotton' 3. *pazhangkaLai* 'fruits'	1. *kuppiyil* 'in the bottle' 2. *talaiya-Naiyil* 'in the pillow' 3. *peTTiyil* 'in the box'
3	Shut (the door); close (the window)	*jannal-ai aTai* window-ACC close 'close the window'	1. you	1. *jannalai* 'window'	
4.	Close (the school, shop, et.)	1. *paLLikkuuTam aTai-ttu-viT-T-aarkaL* school clos-ADVP-leave-PAS-3HP 'They have closed the school' 2. *kaTai aTai-ttu kiTa-kkiR-atu* shop close-ADVP lie-PRE-3NS shop close-ADVP lie-PRE-3NS 'The shop remains closed'	*avarkaL* 'they'	*paLLikkuuTam* 'school' *kaTai* 'shop'	

Sr. No.	Meaning	Example	Arguments		
			Subject	Object	Location/ cause/manner
5	Block (a passage); plug (a hole)	1. *muLLai veTT-ip poT-Tu paataiy-ai aTai-tt-aarkaL* thorn cut-ADVP put-ADVP path-ACC close-PAS-3HP 'They blocked the way by cutting and putting thorny bush' 2. *tuLaiy-il kaTTaiy-aic ceruk-i aTai-tt-aan* 'He closed the hole by insering the wood'	1. *avarkaL* 'they' 2. *avan* 'he'	1. *paataiyai* 'way' 2. *tuLai* 'hole'	1. *muLLai veTTipooTTu* 'by cutting and putting the thorny bush' 2. *kaTTaiyai ceruki* 'by inserting a wood'
6	Become blocked	1. *iratta ndaaLam aTai-ttu viiT-T-atu.* 'The blood vessel close-ADVP leave-PAS-3NS 'The blood vessel is blocked' 2.*muukku aTai-kkiR-atu* nose close-PRE-3NS 'The nose is getting blocked'	1. *iratta ndaaLam* 'blood vessel' 2. *muukku* 'nose'		
7	Discharge or clear (a debt, arrears); pay up	*kaTan-ai oru vaaratiRk-uL aTai-ttu viTu-kiR-een.* debt-ACC one week-within close-ADVP leave-PRE-1S 'I will clear the debt within a week'	*ndaan* 'I'	*kaTanai* 'debt'	

According to the above table *aTi*[2] has seven senses. They include 'put in (a prison, etc.); confine', 'fill up (a container with liquid); stuff (a bag, etc. with something); occupy a space', 'shut (the door); close (the window)'; close (the school, shop, et.), 'block (a passage); plug (a hole)', 'become blocked', 'discharge or clear (a debt, arrears); pay up'.

Prototypically *aTai*[2] is a transitive verb requiring two arguments to express its meaning: subject and object. The subject is the one who confines something and the object is on which is confined. It is extended to denote 'filling something inside something'. Then it is

extended to denote shutting of a door, etc. This is further extended to denote closing of a school, shop, etc. This is further extended to denote closing a hole by means of something like a plug, etc. This is further extended to denote blocking. In this context, the verb *aTai* is recategorized as an intransitive verb expecting only a single argument. Here the object itself functions as the subject of the verb. The verb is further extended to denote paying back a debt. The sense extensions can be interpreted by extracting the semantic features of the object NP of *aTai*[2]. This can be depicted as follows.

aTai[2]	[NP	+ NP-*ai*
	+Subject	+ Object
	+Semantic features	+ Semantic features

To interpret different senses from infinitive number of contexts and to recognize the list of senses enumerated in CMTD, we have to select a semantic theory which takes care of this productive or generative nature of the verb. Pustejovsky tries to capture the polysemous nature of a verb by means of the four levels of structure such as argument structure, event structure, qualia structure (with formal role, constituent role, telic role and agentive role) and lexical inheritance structure along with generative devices such as type coercion, selective binding and co-composition that connects the four levels that provide compositional interpretation of the verb in different contexts. The polysemous nature of the verb *aTai*[2] can be captured by the following representation:

$$\begin{bmatrix} aTai2 \\ \text{EVENTSTR} = \begin{bmatrix} \text{E1} = \text{e1: process} \\ \text{E2} = \text{e2: state} \\ \text{RESTR} = \langle ? \\ \text{HEAD} = \text{e1} \end{bmatrix} \\ \text{ARGSTR} = \begin{bmatrix} \text{ARGSTR1} = \boxed{1} \\ \text{ARGSTR2} = \boxed{1}\ \text{physobj} \\ \qquad\qquad\ \text{FORMAL} = \text{entity} \end{bmatrix} \\ \text{QUALIA} = \begin{bmatrix} \text{default-causative-lcp} \\ \text{FORMAL} = aTai_\text{result (e2, } \boxed{1}\text{)} \\ \text{AGENTIVE} = aTai_\text{act (e1, } \boxed{1}\qquad\text{)} \end{bmatrix} \end{bmatrix}$$

4.3.6.aNi

CMTD has four entries for *aNi* and out of this one entry is a verb and others are nouns. The verb *aNi* is listed with two senses. They have been tabulated below with examples. The examples are analyzed for argument structure of the concerned verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ cause/manner
1	Wear; put on (clothes, pieces jewelry, etc.)	*kaal-il catangkai aNi-ndtu aaTat toTangk-in-aaL.* leg-LOC anklet wear-ADVP dance-INF-start-PAS-3FS 'She started dancing wearing anklet'	*avaL* 'she'	*catangkai* 'anklet'	*kaalil* 'in leg'
2	Put (sacred ash on the body); smear	*avar ndeRRiy-il tirundiiRu aNi-ndt-aar* he forehead-LOC holy-ash wear-PAS-3EP 'He smeared holy ash on the forehead'	*avar* 'he'	*tirundiiRu* 'holy ash'	*ndeRRiyil* 'on the forehead'

The verb *aNi* takes two arguments for its interpretation; a subject which wears something and an object which is worn by the subject. The two senses differ by the semantic features attributed to the object. The four levels of structure such as argument structure, event structure, qualia structure (with formal role, constituent role, telic role and agentive role) and lexical inheritance structure along with generative devices such as type coercion, selective binding and co-composition can capture the semantic extension of *aNi*.

4.3.7. aNai

CMTD has four entries for *aNai*. Among them, one entry is noun and the rest are verbs. The verb *aNai*[1] is an intransitive verb; *aNai2* is the transitive form *aNai*[1]; *aNai*[3] holds a contrastive meaning.

*aNai***1**

CMTD has listed only one meaning for *aNai1*. The *aNai1* is an intransitive verb. The sense is listed in the following table with an example which is analyzed for argument structure of the concerned verb.

Sr. No.	Senses	Example	Arguments	
			Subject	**Manner**
1	Go out as fire, light, etc.	*teruvu-kku veLiccam tandtukoNTiru-ndt-a ore viLakk-um aNai-ndt-atu* street-DAT brightness give-PAS-ADJP only light-EMP go-out-PAS-3NS 'The only light which was giving light to the street went out'	*viLakku* 'light'	*teruvukku veLiccam tandtukoNTiru-ndt-a* 'the light which was giving light to the street'

aNai2

CMTD has listed only one meaning for *aNai2*. The *aNai2* is a transitive verb. The sense is listed in the following table with an example which is analysed for argument structure of the concerned verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location**
1.	Put out (fire, light)	*aTukku maaTik kaTTiTatt-il nderupp-ai aNai-pp-atu perumpaaTu-taan* multi-storied building-LOC fire-ACC extinguish-FUT-GER very difficult-EMP 'It is difficult to put out the fire in the multistoried building'	(Somebody)	*nderuppai* 'fire'	*aTukku maaTik kaTTiTattil* 'in multi-storied building'

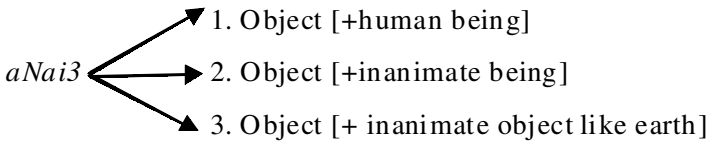
aNai3

CMTD lists three senses for the verb *aNai3*. They have been listed below with examples. The examples are listed with analysis for their argument structure.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner**
1	Embrace	*taay tan kuzhandtaiy-ai aNai-tt-aaL* mother her child-ACC embrace-PAS-3FS	*taay* 'mother'	*kuzhandtaiyai* 'child'	
2	Hold something in one's arm; hug	*avaL puttakangkaL-ai tan maarp-ooTu aNai-tt-a-vaaRu ndTa-ndt-aaL.* she book-ACC her chest-with embrace-PAS-INF-as walk-PAS-3FS 'She walked by holding the books closer to her chest'	*avaL* 'she'	*puttakangka Lai* 'books'	*maarpooTu* 'with chest'
3	Put (usually earth) close to the base of something to strengthen it	1. *marattu-kku maN aNaikk-a veeNTum* tree-DAT earth embrace-INF should 'The earth should be put closer to the foot of the tree' 2. *karai-kku maN aNai-ttu mitikk-a veeNTum* embankment-DAT earth embrace-ADVP tread-on-INF should 'The earth should be put closer to the embankment and treaded'	1.(someone) 2. (someone)	1. *maN* 'earth' 2. *maN* 'earth'	1. *marattukku* 'to tree' 2. *karaikku* 'to embankment'
4	Draw close to each other or draw close to something	1. *maaTT-ai aNai-ttu ooTTu* cattle-ACC embrace-ADVP drive 'Dive the cattles closer to each other' 2. *kaarai oru pakkamaaka aNai-ttu ndiRuttu.* car-ACC one side embrace-ADVP stop 'Stop the car closer to one side'	1. somebody 2. somebody	1.*maaTTai* 'cattle' 2. *kaarai* 'car'	1. - 2. *orupakka-maaka* 'towards one side'

The verb *aNai*[3] accounting to the above table has four senses. They include 'embrace', 'hold something in one's arm; hug', 'put (usually earth) close to the base of something to strengthen it', and 'draw close to each other or draw close to something'.

The verb *aNai*[3] takes two arguments; one is the subject which embraces and the other is the object which is embraced. The subject by default is unmarked for case and the object by default is marked for accusative case marker. The senses are differentiated not only by the semantic features of the object but also by the manner in which the action is performed. The first could be considered as the prototypical sense which denotes 'embracing something'. The second sense of 'holding something closer in one's arm' is an extension of the first one. The extension is predictable and derivable. The third and the fourth one are slightly moved for the prototypical sense of embracing. We can depict the context diagrammatically as follows :



Pustejovsky's theory of generative lexicon which works on four levels of structure such as argument structure, event structure, qualia structure (with formal role, constituent role, relic role and agentive role) and lexical inheritance structure complemented by type coercion, selective binding and co-composition can help us to understand and appreciate the sense extension as well its contradictory senses of the verb *aNai* as a whole (*aNai1*, *aNai2* and *aNai3*). Though CMTD lists one sense for *aNai*[1] and one sense for *aNai*[2] and four senses for *aNai3*, one may feel that the number of senses could be more than what have been listed and one may come across new senses by looking at mass media like newspapers. One can infer that the meaning expands and the words appear in new contexts. Pustejovsky's theory of generative lexicon addresses this productive or generative mechanism in words and provides some solution.

4.3.8.amai

CMTD lists two entries for *amai* because of the contrastive meanings. The verb *amai*[1] is an intransitive verb. The verb *amai*[2] is the transitive form of the verb *amai*[1].

amai[1]

CMTD lists three senses for *amai*[1]. The following table lists these three senses with examples. The examples are analysed from the point of view of argument structure attributed to the concerned verb.

Sr. No.	Senses	Example	Arguments	
			Subject	Location/ cause/manner
1	Form; be established, be set (in) something, take form, be formulated	*inda uur-il min ndilaiyam amaiy-a-viru-kkiR-atu.* this village-LOC electrical substation establish-INF-be-PRE-3NS 'An electrical substation is going to be established in this village.'	*minndilaiyam* 'electical substation'	*indta uuril* 'in this village'
2	Be (with the stated quality or in the stated way)	1. *tooTi raakatt-il amai-ndt-a kiirttnai.* *todi raham*-LOC formulate-PAS-ADJP music. 'the music composition framed in *todi raham*' 2. *atu ndalla eeRpaaT-aaka amaiy-a-villai.* that good arrangement-ADV frame-INF-not 'That did not become a suitably framed one' 3. *caTTa vitikaL ivvaaRu amai-ndt-uLL-ana.* law rules this-way frame-PAS-ADVP-be-3NP 'The rules of law were framed in this way'	1. *kiirttanai* 'music' 2. *atu* 'that' 3. *caTTa vitikaL* 'rules of law'	1. *tooTi raakattil 'in todi raham'* 2.*ndalla eeRpaaTaaka* 'arranged good' 3.*ivvaaRu* 'this way'
3	Come to be had (something sought or desired)	1. *en peNN-ukku maappiLai amaiy-a-villai.* my daughter-DAT bridegroom be-suitably-set-not 'A bridegroom is not suitably set for my daughter' 2. *ena-kku kiTai-tt-a veelai ena-kku eeRRataakavee amai-ndtu-viT-T-atu.* I-DAT get-PAS-ADJP job I-DAT suitable be-set-3NS 'The job I got is suitably set for me'	1. *maappiLai* 'bride groom' 2. *enakku kiTaitta veelai* 'the job got by me'	1. *en peNNukku* 'for my daughter' 2. *eeRRataakavee* 'suitable'

The verb *amai*[1] prototypically denotes 'being established, being formulated, and being set'. The other two senses are extensions.

***amai*[2]**

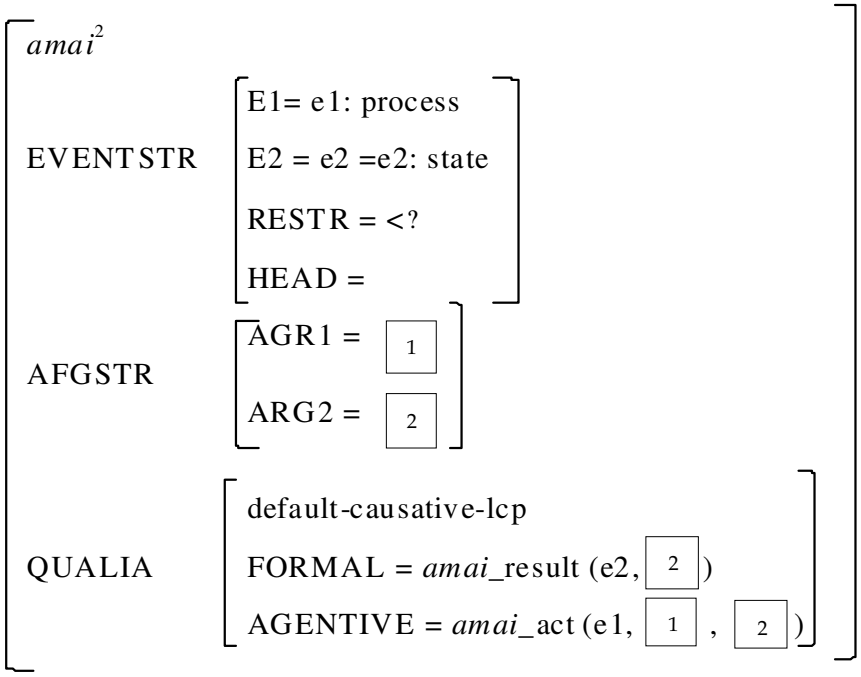
The verb *amai2* is the transitive verb of the intransitive verb *amai1*. CMTD lists three senses for *amai*[2]. The senses are listed in the following table with examples. The examples are analysed for argument structure.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/Beneficiary/manner
1	(generally) make; establish, set up, formulate, arrange	1. *cennaiy-il puRandakar pakutikaL-il kuTiyiruppukaL amaikkappaT-Tu varu-kinR-ana* Chennai-LOC suburban-areas-LOC be-established-ADVP come-PRE-3NP 'Colonies have been established in the suburban areas of Chennai' 2. *indap paTatt-il caNTaik kaaTcikaL ndanRaaka amai-tt-iru-kkiR-aarkaL.* this movie fighting scenes well formulate-be-PRE-3HP 'Fighting scenes are well formulated in this movie' 3. *ndiingkaL taan ena-kku oru ndalla vaazhkkai amai-ttuk koTukk-a veNT-um* you only I-DAT one good life arrange-ADVP give-INF should 'You only should arrange a good life for me'	1. – 2. *avarkaL* they 3. *ndiikkaL* 'you' 4. –	1. *kuTiyiruppu-kaL* 'colonies' 2. *caNTaikkaa-TcikaL* 'fighting scenes' 3. *ndalla vaazhkkai* 'good life' 4. *caTTa vitikaL* 'rules of law'	1. *puRandakar pakutiyil* 'in the suburban areas' 2. *indta paTattil* 'in this movie' 3. *enakku* 'to me' 4. *tirutti* 'having corrected'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/Beneficiary/manner**
		4. *caTTa vitikaL tirutt-i amaikkappaT-Tu varu-kinR-ana.* law rules correct-ADVP-PASS-ADVP come-PRE-3NP 'The rules of law are corrected and getting formulated'			
2	Form (a government); establish (a committee); set up	1.*tozhilaaLarkaL cangkam amai-ttup pooraaT-in-aarkaL* workers association establish-ADVP revolt-PAS-3HP 'The workers revolted after forming an association' 2.*uyar aaloocanaik kuzhu amaikk-a muTivu ceyyappaT-T-atu.* high advisory committee establish-INF decision do-PAS-PASS-3NS 'It was determined to establish a high advisory committee.'	1. *tozhilaa-LarkaL* 'workers' 2. –	1. *cangkam* 'uninon' 2. *uyar aaloocanaik kuzhu* 'high advisory committee'	1. – 2. –
3	Build in, connect; install	*inda iyandtiratt-il amaikk-a-ppaTTuLL-a min iNaippukaL-in varaipaTam itu.* this machine-LOC install-INF-PASS-be-ADJP electrical connections-GEN map this. 'This is the drawing of the electrical connections installed in this machine'		*min iNaippukaL* 'electical connections'	*indta iyandtirattil* 'in this machine'

The verb *amai*[2] has three senses and they include the senses such as '(generally) make; establish', 'set up, formulate; arrange', 'form (a government); establish (a committee); set up' and 'build in; connect; install'. The prototypical sense of 'establish' has been expanded to denote a range of meaning including forming a government and establishing a committee and building in, connecting or installing.

The senses listed in the table are complement senses and can be easily proved to the extensions from the primary sense. The verb *amai*[2] is the transitive form of the intransitive verb *amai*[1]. The three senses listed both for *amai*[1] and *amai*[2] are more or less parallels; the first set of senses belonging to *amai*[1] are caused events and the second set of senses belonging to *amai*[2] are causing events. Based on Pustejovsky's lexical semantics of causation, we can arrive at a semantic representation that is both informative regarding the connection between the arguments, but also predictive of the grammatical behavior of the verb with respect to syntactic relations. The following pictorial representation will illustrate this implication.



4.3.9.aaTu

CMTD has given two entries for *aaTu*; one is a verb entry and another is an unrelated noun entry. CMTD has listed 11 senses for *aaTu*. They are tabulated below with examples. The examples are analysed for the argument structure of the concerned verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner/kind**	**Place/reason complement**
A Usages related to swaying					
1	Move in a swaying motion; move to and fro (of something which is hanging or standing in a position)	1.*avaL-uTaiya pinnal kutirai vaal-aaka aaT-iy-atu.* she-GEN plaited hair horse tail-ADV move-PAS-3NS 'Her plaited hair swayed like a horse tail' 2. *paampu paTam eTu-ttu aaT-iy-atu.* snake hood raise-ADVP move-PAS-3NS 'The snake swayed by raising its hood' 3. *yaanai aaTikkoNtee karumpait tinRatu* 'The elephant ate the sugar cane by swaying its body'	1.*avaLuTaiya pinnal* 'her plaited hair' 2. *paampu* 'snake' 3. *yaanai* 'elephant'	1. *kutirai vaalaaka* 'like a horse tail' 2. *paTam eTuttu* 'by raising its hood'	
2	Shiver; tremble (of body)	*irattattaip paarttatum avaL uTampellaam aaTat toTangkiyatu* 'Her whole body trembled by seeing the blood'			
3	Vibrate	*pukaivaNTi cenRa veekattil paalam aaTiyatu* 'The bridge vibrated due to the speed with which the train went'	*paalam* 'bridge'		*pukaivaNTi cenRa veekattil* 'due to the speed with which the train went'
4	Shake	1. *ndaaRkaali cariyaaka ndiRk-aa-mal aaT-iy-at-aal avaL vizhap paarttaaL.* chair correctly stand-not-ADVP shake-PAS-GER-	1.*ndaaRkaali* 'chair' 2. *mun pal* 'front teeth'	1. *cariyaaka ndiRkaamal* 'without standing firmly'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner/kind**	**Place/reason complement**
		because-of she fall-INF see-PAS-3FS 'She was about to fall as the chair shook without standing firmly' 2. *kuzhandtai-kku munpal iraNTum aaTu-kiR-atu* child-DAT front teeth two shake-PRE-3NS 'The two front teeth of the child are shaking'			
5	Go forward and backward (of a swing or one in a swing); swing	1. *uunjcal veekamaaka aaTi-R-Ru* swing fast move-PAS-3NS 'The swing moved to and fro speedily' 2. *avar uunjcal-il uTkaar-ndtu metuvaaka aaTikkoN-T-ee peec-ik-koN-T-iru-ndt-aar.* he swing-LOC sit-ADVP-EMP speak-ADVP-possess- ADVP-be-3EP 'He was speaking sitting on the swing and moving to and fro slowly.'	1.*uunjcal* 'swing' 2. *avar*	1. – 2. *uunjcalil uTkaarndtu metuvaaka* 'sitting on the swing slowly'	
B. Usages related to acting					
6	Dance; move as if dancing	1. *civan aaT-iy-a uuzhit taaNTavam* Siva dance-ADJP apocalyspe-dance 'apocalyspe-dance danced by Lord Siva' 2.*paaTal-in karuttukk-um paavattukk-um*	1.*civan* 'Lod Siva' 2.- 3.*mayil* 'peacock'	1. *uuzhit taaNTavam* 'apocalyspe-dance'	1. – 2. – 3. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner/kind**	**Place/reason complement**
		eeRRavaaRu apindayatt-uTan aaT-a-veeNTum. song-LOC theme-CO mode -CO suitably act-with dance-INF-should 'One should dance with the expression suitable to the theme and mode of the song' 3. *mayil tookaiy-ai viri-ttu aaT-iy-atu* peacock tail-feather-ACC spread-ADVP dance-PAS-3NS 'The peacock danced spreading its tail feather' 4.*inRu enna kuuttu aaTap pookiRiirkaL*? today what play dance-INF go-PRE-2P 'What kind of *kuuttu* are you going to dance today?	4. you all	2. *apindyattu-Tan* 'with expre-ssion' 3. *tookaiyai virittu* 'spreading the tail feathers'	4. *enna kuuttu* 'what kind of play'
7	Play (a game)	1.*andtak kaalatt-il ndaangkaL iravu muzuvatum taayam aaTu-v-oom.* those time-LOC we night full dice play-FUT-1P 'We paly dice thoughout night in those days' 2.*inRaiya kaalpandtaaTTap pooTTiy-il indtiya aNi ciRappaaka aaT-iy-atu.*	1.*ndaangkaL* 'we' 2. *indtiya aNi* 'Indian team'	1. *taayam* 'a type of dice play' 2. *kaal pandtaaTTap pooTTiyil* 'in football match'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner/kind**	**Place/reason complement**
		today's football-play-match Indian team play-PAS-3NS 'Indian team played well in today's football play match.' 'The Indian team played well in today's football match.'			
8	Crush (oil seed in a press to extract oil)	*ungkaL viiTT-il inda varusham ettanai kaaNam aaT-in-iirkaL.* your house-LOC this year howmany 'How many oil-pressfulls were pressed in your house'	*ndiingkaL* 'you (pl)'	*ettanai kaaNam* 'how many oilpress-fulls'	
9	Behave without restraint; have an intemperate life style	*paNam irukk-um varai aaTu-v-aan* money be-FUT-ADJP upto dance-3MS 'He will act carefree till he has money'	*avan* 'he'	*paNam irukkum varai* 'till the money is in the possession'	
10	Fly into a temper	*kuzhandtai enna coll-i-viT-T-aan enRu ippaTi aaTu-kiR-iirkaL* 'Why do you flew into a temper what the child said'	*ndiingkaL* 'you'	*kuzhandtai enna colliviTTaan* enRu 'what is that the child said'	
11	Dance to the tune of something	1.*manaivi con-n-at-ai ellaam keeT-Tu avan aaTu-kiR-aan* wife say-PAS-GER-ACC all hear-ADVP he dance-PAS-3MS 'He danced to the tune of what all his wife said.'	1. *avan* 'he' 2. *ndii* you	1. *manaivi colvataiyelaam keeTTu* 'having listening to what all wife said'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner/kind**	**Place/reason complement**
		2. *kaNTavar col-v-at-aik keeT-Tu aaT-iya-van taanee ndii* any-person say-FUT-GER-ACC hear-PAS-ADVP dance-PAS-ADJP-3MS EMP you 'You who danced to the tune of others. Isn't it?'		2. *kaNTavar colvataik keeTTu* 'having listented to all'	

As we understand from the above table, CMTD has grouped the eleven senses into two groups: A. Usages related to swaying and B. Usage related to acting. The first group contains 1 to 5 senses and the second group contains 6 to 11 senses. The moving of the plaited hair, the snake with hood, the body due to cold, the bridge due to vibration, the tooth and the swing are grouped in the first set. The senses 2 to 5 can be considered as extension of the prototypical sense "move in a swaying motion." The senses such as 'dancing', 'playing', 'grinding in a crusher', 'act without any constraints', 'act with anger and loudly', and 'dance or act to the tune of somebody' are grouped in the second set. The senses 6 and 7 involve real movements whereas the senses 9 to 11 are metaphorical in nature.

The verb is a single-argument verb in which the subject is one which resorts to swaying type of motion. The extensions of meaning are not controlled by the subject but by the other words which become part of the sentence which carries the verb *aaTu*. The 7th sense extension can be easily understood by the co-occurring words *taayam* 'a type of dice plays' and *kaalpandtu* 'football'. Similarly the co-occurring words *cekku* 'oilpress' and *kaaNam* 'an oilpressful' can help us to infer the eighth sense. The 9th to 11th senses too can be generated by the co-occurring words; but their range appears to be quite unpredictable.

4.3.10. aaTTu

The verb *aaTTu* is the transitive form of the verb intransitive verb *aaTu* which is discussed above. CMTD has listed 4 senses for *aaTTu* which are listed below with examples. The examples are analyzed for the argument structure of the verb *aaTTu*.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner**
1	Wag (one's tail); move (one's head); shake; wave (the flag, etc.)	1.*ndaay vaal-ai aaTT-iy-a-paTiyee arukil va-ndt-atu.* dog tail-ACC wag-PAS-ADJP-manner near come-PAS-3NS 'The dog came near wagging its tail' 2. *avar kuzhandtaikaL-aip paar-ttu kaiy-ai aaTT-in-aar.* he children-ACC see-ADVP hand-ACC wave-PAS-3EP 'He waved his hand looking at the children.' 3. *cari en-Ru talaiy-ai aaTT-in-aan*. correct say-ADVP head-ACC shake-PAS-3MS 'He shook his head saying 'yes'. 4. *eeNiy-ai aaTT-aa-mal kiizhee iRangk-i vaa* ladder-ACC shake-NEG-ADVP descend-ADVP come 'Come down without shaking the ladder'	1.*ndaay* 'dog' 2. avar 'he' 3. avan	1. *vaalai* 'tail' 2. *kaiyai* 'hand' 3. *talaiayi* 'head' 4. *eeNiyai* 'ladder'	
2	Shake (an object)	1. *kutirai meel ceeNatt-ai vai-ttu kaTTiviT-Tu aaT-Tip paar-tt-aan.* horse on saddle-ACC keep-ADVP tie-ADVP shake-ADVP see-PAS-3MS 'He tied the saddle on the horse and examined it by shaking it.'	1. *avan* 'he' 2. *avan* 'he' 3. –	1. *ceeNattai* 'saddle' 2. *uNTiyalai* 'hoondi' 3. *puLiya marattin kiLaiyai* 'the branch of the mango tree'	

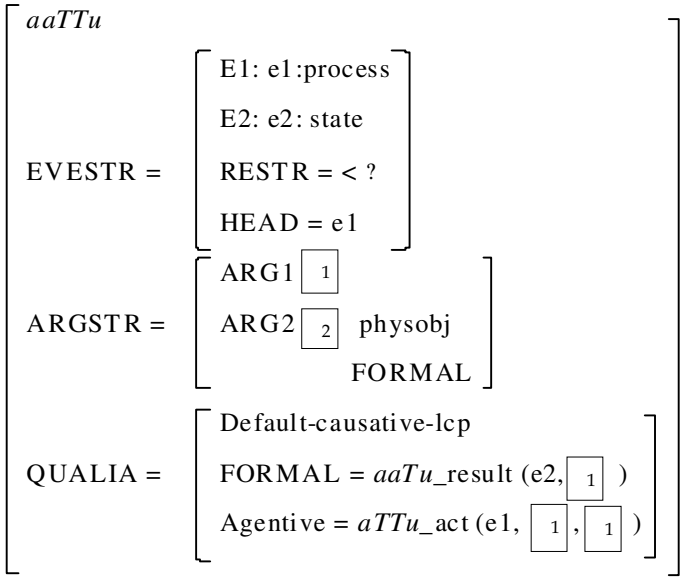
Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner
		2. *kaacu iru-kkiR-at-aa enRu uNTiyal-ai aaTT-ip-paar-tt-aan.* coin be-PRE-GER-QUE that hoondi-ACC shake-ADVP-see-PAS-3MS 'He shook the hoondi to see whether it contains coins' 3. *puLiya maratt-in kiLaiy-ai aaTT-iy-at-um puLiyam pazhangkaL kiizhee vizhu-ndt-ana.* tamarind tree-GEN branch-ACC shake-PAS-GER-immediately tamarind fruits below fall-PAS-3NP 'When the branch of tamarind tree was shaken, the tamarind fruits fell down'			
3	move (something); rock; swing	*uunjcal-il uTkaar-ndtu at-aik kaal-aal aaTTikkoN-T-ee peec-a aarampi-tt-aar.* swing-LOC sit-ADVP that-ACC leg-INS moving-ADVP speak-INF start-PAS-3EP 'Sitting on the swing he started talking moving it with his leg'	*avar* 'he'	*uunjcal* 'swing'	*kaalaal* 'by leg'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner**
4	Press/make (dough, etc by grinding)	1.*karumpu aaTT-i-viT-T-iirkaL-aa*? sugarcane press-ADVP-leave-PAS-3HP-QUE 'Did you press the sugar cane?' 2. *eNNai aaTT-um cekku* oil press-FUT-ADJP oil-press 'the oilpress which presses out oil' 3.*toocai-kku maavu aaTT-a veeNTum.* dosa-DAT dough grind-INF should 'Dough should be made for dosa'	1.*ndiingkaL* 'you' 2. – 3. (some one)	1. *karumpu* 'sugar cane' 2. *eNNai* 'oil' 3. *maavu* 'dough'	1. – 2. *cekku* 'oilpress' 3. *toocaikku* 'for dosa'

As we noted already, *aaTTu* is the transitive form of the intransitive *aaTu*. The verb *aaTTu* as a two-place predicate takes two arguments, a subject which performs the shaking or waving movement and an object which is undergoes shaking or waving movement. Though *aaTTu* is the transitive form of *aaTu*, only 4 senses are listed for *aaTTu* against 11 senses of *aaTu*. So the 11 senses listed for *aaTu* cannot be equated straight with the 4 senses listed for *aaTTu*. But with some efforts parallels can be found between the two verbs. That is the intransitive senses of *aaTu* can find parallels with the transitive senses of *aaTTu*. Some exhibit parallels and some contrasts. It appears that the first three senses can be taken together and the second and third senses can be generated from the prototypical first sense by the specific semantic features that are assigned to the object. This can be represented as follows:

aaTTu [NP + NP-*ai*——]
+Subject +Object
[+Specific semantic features] [+Specific semantic features]

Taking into account Pustejovky's principles of generative lexicon, the semantic structure of *aaTTu* in terms of event structure, argument structure and qualia structure can be represented as follows:



4.3.11.izhu

The verb *izhu* has only one entry in CMTD and that too as a verb. CMTD has listed 14 senses and they have been tabulated below with the examples analysed in terms of arguments of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
1	Pull (towards oneself) draw	1. *rappar vaLaiyatt-ai atikmaaka izhukk-aat-ee*. rubber ring-ACC more pull-do-not-2S 'Don't pull the rubber ring more' 2. *cinimaav-ukkup pook-alaam enRu kaiy-aip piTi-ttu izhu-tt-aan*. cinema-DAT go-can that hand-ACC catch-ADVP pull-PAS-3MS He pulled the hand saying that 'let us go to cinema'.	1. *ndii* 'you' 2. *avan* 'he' 3. *maaTu* 'cattle' 4. *avarkaL* 'they'	1. *rappar vaLaiyattai* 'rubber ring' 2. *kaiyai* 'hand' 3. *cekku* 'press', *vaNTi* 'cart' 4. *yaanai* 'elephant'	1. *atikamaaka* 'more' 2. *piTittu* 'having held' 3. – 4. *paLutuukk-iyaal* 'by crane'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
		3. *cekku izukk-um maaTT-ai vaNTi izukk-a vaikk-a muTiy-aatu.* oil-press pull-FUT-ADJP cattle-ACC cart pull-INF keep-INF can-not 'One cannot use a cattle used for pulling a press to pull a cart' 4. *ceeRR-il maaTTikkoNT-a yaanaiy-aip paLutuu-kkiy-aal izhu-ttuk kaappaaRR-in-aarkaL.* mud-LOC trap-PAS-ADJP elephant-ACC crane-INS pull-ADVP save-PAS-3HP 'They saved the elephant trapped in the mud by pulling it using a crane'			
2	Have spasms (of limbs); convelse	*kaakkaay valippu va-ndt-atu maatiri avan-ukkuk kaiyu-um kaal-um izhu-ttu-kkoN-T-ana.* epilepsy come-PAS-GER like he-DAT hand-CO leg-CO pul-ADVP-possess-PAS-3NP 'His hands and legs have convulsed as if he has eplilepsy'	*kaiyum kaalum* 'hand and leg'		*kaakkaay valippu vandtatu maatiri* 'as if (he) has epilepsy'
3	Pull (something to a desired place or position)	1. *ndaaRkaaliy-ai cuvar ooram-aaka izhu-ttup-pooT-TukkoN-Tu uTkaar-ndt-aar.* chair-ACC wall side-ADV pull-ADVP-put-ADVP-possess-ADVP sit-PAS-3EP 'He pulled the chair near to the wall and sat on it'	1. *avar* 'he' 2. you 3. *avaL* 'she' 4. *avan* 'he'	1.*ndaaR-kaaliyai* 'chair' 2. *jannal tiraiyai* 'window curtain' 3. *mukkaaTai* 'hood'	1.*cuvar ooramaaka* 'near to the wall' 2. *ciRitu* 'a little' 3. *aTikkaTi* 'often'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
		2. *jannal tiraiy-ai caRRu izhu, veLiccam var-aTTum.* window curtain-ACC little pull, light come-let 'Pull the window curtain a little and let the sunlight come inside' 3. *avaL peec-um-pootu aTikkaTi mukkaaT-ai izhu-ttu viT-Tu-kkoN-T-aaL* she speak-FUT-ADJP-at-that-time often hood-ACC pull-ADVP leave-ADVP-possess-PAS-3FS 'She pulled down her hood often while talking' 4. *ndaaTaav-ai izhu-ttuc curukkppaiy-ai muuT-in-aan.* cloth tape-ACC pull-ADVP drawstring-bag-ACC close-PAS-3MS 'He closed the drawstring bag by pulling the cloth tape'		4. *ndaaTaa* 'cloth tape'	
4	Drag (something into something); involve	1. *enn-ai vampuc caNTai-kku izhukk-aat-ee.* I-ACC petty quarrel pull-not-you. 'Don't drag me into the petty quarrel' 2. *etaRk-aaka anaavaciyamaaka avan peyar-ai izhu-kkiR-aay.* what-for unnecessarily his name-ACC pull-PRE-2S 'Why did you drag his name unnecessarily'	1. You 2. you	1. *ennai* 'me' 2. *avan peyarai* 'his name'	1. *vampuc caNTaikku* 'to the petty quarellel' 2. *anaavaciya-maaka*

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
5	Leave (what one has started telling) unfinished	'*avar ungkaL-aip paRRi…' enRu meelum coll-aa-mal izhu-tt-aar.* 'he you-ACC about' that again say-not-ADVP pull-PAS-3EP 'He left unfinished while started telling 'He about you…' '*pariTcai-kkup paTikk-a veeNTum' enRu izhu-tt-aaR-pool co-nn-aan* examination-DAT study-INF should that drag-PAS-as-like say-PAS-3MS 'He said dragginly that 'I have to study for examination'	1.*avar* 'he' 2.*avan* 'he'		1.*meelum coll-aa-mal* 'without telling more' 2. *pariTcai-kkup paTikk-a veeNTum' enRu* 'that (he) has to study for examination'
6	prolong	*indta veelai innum evvaLavu ndaaL izhukk-um.* this work still how many day pull-FUT 'How many days this work will prolong'?	*veelai* 'work'		*evvaLavu ndaaL* 'how many days'
7	Be in protractedly critical condition	*avar ndilamai inRai-kk-oo ndaaLai-kk-oo enRu izhu-ttuk koN-T-iru-kkir-atu* his condition today-DAT-or tomorrow-DAT-or that pull-ADVP possess-ADVP-be-PRE-3NS 'His condition is protracted as today or tomorrow'	1. *avar ndilamai* 'his condition'		1.*inRai-kk-oo ndaaLai-kk-oo enRu* 'that today or tomorrow'
8	Gasp (for breath)	*una-kku een ippaTi muuccu izhu-kkiR-atu* you-DAT why this-way breathe pull-PRE-3NS 'Why are you gasping for breath?'	*muuccu* 'breath'		*unakku* 'to you'; *een ippaTi* 'why this way'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
9	Take in; draw in	1.*orumuRai aazhamaaka muucc-ai izhu-ttu viT-Tuk-koN-T-aar.* one-time deeply breathe-ACC pull-ADVP leave-ADVP-possess-PAS-3EP 'He drew in the breath deeply once' 2. *piiTiy-ai paRR-a-vai-ttu pukaiy-ai izhu-ttu uut-in-aar.* beedi-ACC light-INF-keep-ADVP smoke-ACC pull-PAS 'He lighted the beedi and draw in the snoke and blow out'	1. *avar* 'he' 2..*avar* 'he'	1.*muuccai* 'breath' 2.*pukaiyai* 'smoke'	1.*oru muRai aazhamaaka* 'deeply' 2.*piiTiyaip paRRavaittu* 'after lighting the beedi'
10	Attract; draw close	1.*irmp-aik kaandtam izhu-pp-atu pool avaL azhaku avan-ai izhu-tt-atu* iron-ACC magnet pull-FUT-GER like he beauty he-ACC pull-PAS-3NS 'Her beauty attracted him like a magent attracted iron.' 2. *racikarkaL-ai ungkaL pakkam izukk-um cakti ungkaL-ukku iru-kkiR-atu.* fans-ACC your side pull-FUT-ADJP ability you-DAT be-PRE-3NS 'You have the ability to attract the fans to your side'	1.*kaandtam* 'magnet'; *avaL azhaku* 'her beauty' 2.*ndiingkaL* 'you'	1. *irumpu* 'iron'; *avanai* 'he' 2. *racikarkaL* 'fan'	1. – 2. *ungkaL pakkam* 'your side'
11	Draw (water from a well, etcl)	*taNNiir izhu-ttu izhu-ttu avaL kaiy-ellaam vali-kkiR-atu.* water pull-ADVP pull-ADVP she hand-all pain-PRE-3NS 'Her hands are	*avaL* 'she'	*taNNuur* 'water'	

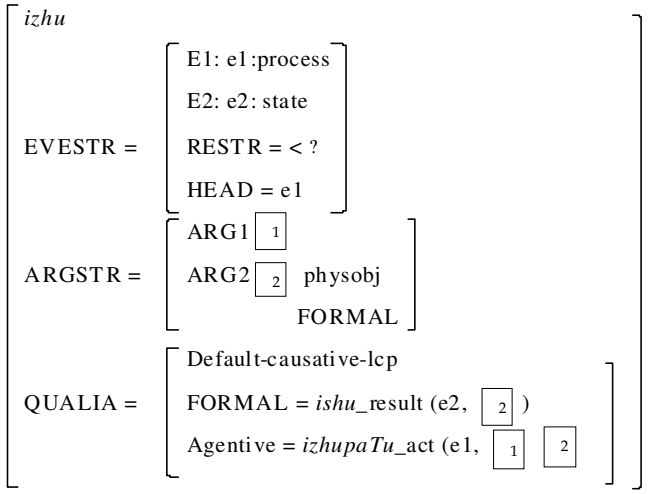
Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/ instrument**
		painful by dragging water again and again'			
12	Draw (a line)	*avan-ukku vayatu patt-aa-kiR-atu. ndeeraaka oru kooTu izhukk-at teriy-a-villai.* he-DAT age ten-become-PRE-3NS. Straightly one line pull-INF know-INF-not He is ten years old, but he is unable to draw a line'	1.*avan* 'he'	1.*kooTu* 'line'	1. *ndeeraaka* 'straight'
13	Draw (into wire, fibre)	*irumpaik kampiyaaka izhukkalaam* 'He drew the iron into wire'	1.one	*irumpu*	*kampiyaaka* 'wire'
14	Comb (hair)	1. *un ucci vaTiv-aaka illai. muTiyaic cariyaaka izhu.* your crown shape-ADV not. Hair-ACC correctly pull 'The crown of your head is not in proper shape. Comb your hair correctly' 2. *talai izhu-ttu mukam kazhuv-i-kkoN-Tu puRappaT-T-aaL.* head pull-ADVP face wash-ADVP-possess-ADVP start-PAS-3FS 'Having combed her hair, washing her face she started going out.' 3.*avar ndaTu ucciy-ai piri-ttut taan talaiy-ai izhu-pp-aar.* he central crown-ACC separate-ADVP EMP hair-FUT-3EP 'He used to comb hishair by separating it from the crown'	1. *ndii* 'you' 2.*avaL* 'she' 3.*avar* 'he'	1. *muTi* 'hair' 2.*talai* 'head' 3.*talai* 'head'	1.*cariyaaka* 'correctly' 2. – 3. *ndaTu ucciyai pirittu* 'having separated the hair from the top'

CMTD has listed elven senses for the verbs *izhu*. They are 1. 'pull (towards oneself); draw', 2. 'have spasms (of limbs); convulse', 3. 'pull (something to a desired place or position)', 4.'drag (something into something); involve', 5.'leave (what one has started telling) unfinished', 6.'prolong', 7. 'be in protractedly critical condition', 8.'gasp (for breath)', 9. 'take in; draw in', 10. 'attract; draw close', 11. 'draw (water from a well, etc.)', 12. 'draw (a line)', 13. 'draw (into wire, fibre)', and 14. 'comb (hair)'.

The verb prototypically denotes 'pulling towards oneself' and 'drawing'. It is a transitive verb involving two arguments, subject and object. The subject is the initiator of the action and the object is the one which undergoes the resultant action of being pulled towards the subject. The senses 1 to 3, 8, 9, and 11 to 14 are real actions and the rest such as 4 to 7 and 10 are metaphorical in nature. There are two actions are involved in meaning of the verb *izhu*; one is the pulling action exerted by the subject and another is the resultant action of being pulled undergone by the object. The sense 2 is closer to the first one and the extension of the sense is predictable. The second one is slightly different from the prototypical sense. In this case there is no explicit initiator of the action who resorts to pulling. Only there is a cause which could be a disease like epilepsy. At the same time the explicit result of the action, that is, the movement of being dragged to the subject is also missing in this sense. The senses 8 and 9 are the sense extensions of drawing in either breath (air) or smoke. The senses 11 to 14 denote real actions (not metaphorical ones) of different types of pulling. The co-occurring words including the object argument and the manner denoting words help us to understand the sense extensions. The following diagramed representation will depict the semantic features by which we understand the extension of senses from the prototypical sense.

izhu	[NP	+ NP-*ai*——]
	+Subject	+Object
	[Semantic features]	[Semantic features]

It is possible to explain the extension of meaning in the frame work proposed by Pustejovsky.



The frame work given for *izhu* reveals that *izhu* as a transitive verb holds in itself two events, the event (E1) performed by the subject which causes the event (E2) performed by the object. The meaning extension of *izhu* mostly depends on the semantic features of the object.

4.3.12.iir

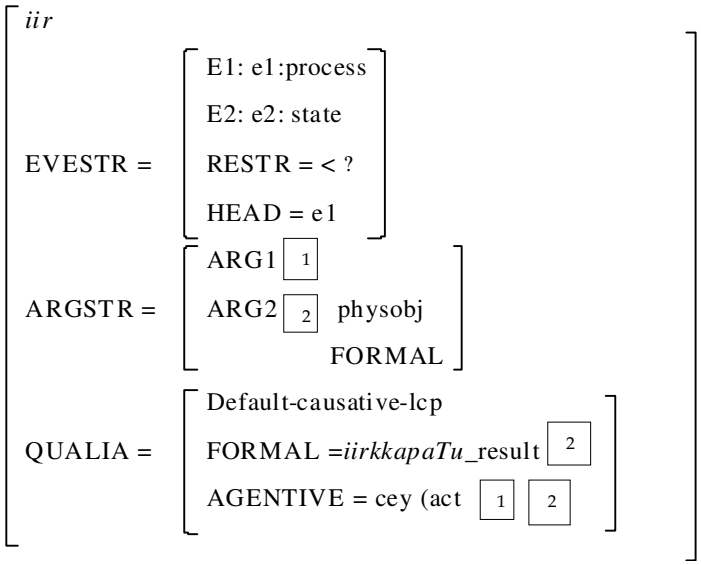
The verb *iir* has three entries. The first one is a verb, second one is noun, and the third one is an adjective. CMTD has listed three senses for *iir*. They have tabulated below with examples. The examples are analysed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments	
			Subject	Object
1	pull towards; attract	1. *poruTkaL-ai iirkk-um cakti puumi-kku illaiy-enR-aal ndaam mitakk-a veeNT-iy-at-aak-i viT-um.* objects-ACC attract-FUT-ADJP power earth-DAT not-that-if we float-INF should-GER-become-ADVP leave-FUT 'We need to float, if there is no power for the earth to attract the objects towards it.' 2.*kaandtam irumpai iirkk-um* magnet iron attract-FUT 'The magnet attracts the iron'	1. *puumi* 'earth' 2. *kaandtam* 'magnet'	1. *poruTkaLai* 'objects' 2. *irumpai* 'iron'
2	Absorb; take in water	*vaRaN-Tu kiTa-ndt-a ndilam mazhai ndiir-ai uTanee iir-ttu-kkoN-T-atu* dry-ADVP lie-PAS-ADJP earth rain water-ACC immediately absorb-ADVP-possess-PAS-3NS 'The dry earth absorbed the rain water immediately'	*varaNTu kiTandta ndilam* 'dry earth'	*mazhai ndiirai* 'rain water'

Sr. No.	Senses	Example	Arguments	
			Subject	Object
3	Attract (one's attention, et; or some object towards oneself)	1. *aaciriyarkaL ndaTatt-iy-a pooraaTTam potumakkaL-in kavanattai iir-tt-atu.* teachers conduct-PAS-ADJP struggle common-people's attention-ACC attract-PAS-3NS 'The teacher's strike attracted the attention of the common people.' 2. *avaL-utaiya iniya peecc-um ciripp-um avan-ai iir-tt-ana* her sweet-speech-CO laugh-CO he-ACC attract-PAS-3MS 'He sweet speech and laugh attracted him.'	1.*aaciriyarkaL ndaTattiya pooraaTTam* 'the strike conducted by the teachers'	1. *potumakkaLin kavanattai* 'the attention of the general public' 2. *avan* 'he'

'The verb *iir* incorporates three senses and they are 'pull towards; attract', 'absorb; take in water' and 'attract (one's attention, etc.; or some object towards oneself). The verb *iir* is a bivalent verb receiving two arguments, the subject and the object. The subject is the initiator of the action of pulling. This results in the pulling of the object towards the subject. Thus there are two actions involved in the verb *iir*. The first sense is the prototypical sense of pulling something towards the subject. The second sense is the extension of the prototypical meaning to denote the absorption of the object by the subject. The third one is a metaphorical extension of denoting an abstract movement of the object towards the subject. Both the semantic features of subject and object contribute to the different interpretation or senses of the verb *iir*. This can be depicted as follows:

iir	[NP	+ NP-*ai* ——]
	+Subject	+Object
	[Semantic features]	[Semantic features]



The above given diagrammatic representation of the structure of *iir*, explains the involvement of two events: the process e1 and the resultant state e2. The argument structure involving the argument role 1 and argument role 2 along with qualia structure interprets the different meanings of *iir*.

4.3.13.uTai

The form *uTai* has three entries in CMTD. There are two verbal entries and one is a noun entry. The entry *uTai*[1] is the intransitive form and transitive form *uTai*[2].

uTai1

CMTD has listed nine senses for the verb. They are tabulated below with examples. The examples are analysed for argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Reason/ manner	Location
1	break	1. *cavukkuk kaTTaiy-aal aTi-tt-at-il tiruTan-in kaal uTai-ndt-atu* casuarina wood-INS beat-PAS-GER-LOC thief-GEN leg break-PAS-3NS 'The leg of the thief broke as he was beaten with casuarina wood.'	1. *tiruTanin kaal* 'leg of thief' 2.*ndaa Rkaali* 'chair' 3.*avaruTaiya maNTai* 'his head'	1. *cavukkuk kaTTaiyaal aTittatil* 'due to beating by casuarina wood'	–

Sr. No.	Senses	Example	Arguments		
			Subject	**Reason/ manner**	**Location**
		2. *paLu taangk-aa-mal ndaaRkaali uTai-ndt-atu.* weight withstand-NEG-AVDP chair break-PAS-3NS 'The chair broke as it could not withstand the weight.' 3. *vipatt-il avar-uTaiya maNTai uTai-ndtu rattam ozhuk-iy-atu.* accident-LOC his head break-ADVP blood ooze-PAS-3NS 'His head broke in the accident and blood oozed out'		2. *paLu taangkaamal* 'without withstanding the weight' 3. *vipattil* 'in the accident'	
2	Break into pieces	1. *piingkaan kooppai uTaindu ndoRungkiyatu* 'The poceline cup broke into pieces' 2. *maaTiyilirundtu vizhunda toTTi uTaindtu citaRiyatu* 'The tub fell down from the upstairs broke and shattered ino pieces' 3. *kai tavaRi vizhundtu kaNNaaTi uTaindatu.* 'The glass fell down due to the slip of the hand and borke'	1.*piingkaan kooppai* 'poceline cup' 2. *toTTi* 'tub' 3. *kaN NaaTi* 'glass'	1. – 2.*maaTiyilirundtu vizhunda* 'that which fell down from upstairs' 2/3.*kai tavaRi vizhundtu* 'by the slip of the hand'	–
3	Burst; split	1. *muuLaiy-il ratta ndaaLam uTai-ndtu viT-T-atu.* brain-LOC blood vessel burst-ADVP leave-PAS-3NS 'The blood vessel burst in the brain'	1.*ratta ndaaLam* 'blood vessel'	1.- 2.-	1. *muuLaiyil* 'in the brain' 2.*cila camaiyam* 'some times'

Sr. No.	Senses	Example	Arguments		
			Subject	Reason/ manner	Location
		2.*toRRukkuLLaana kuTalvaal cila camaiyam uTai-ndt-u-viT-um* diseased appendix sometimes burst-ADVP-leave-FUT 'The diseased appendix will burst sometimes.' 3. *iyandtiratt-il veppam atikari-tt-at-aal kuzhaay uTai-ndtu viT-T-atu* machine-LOC heat increase-PAS-GER-because tube burst-ADVP leave-PAS-3NS 'The tube burst as the temperature in the machine increased.' 4. *ciRuvan uut-ik-koN-T-iru-ndt-a paloon uTai-ndt-atu* boy blow-ADVP-possess-ADVP-be-PAS-ADJP balloon burst-PAS-3NS 'The bloon which the boy was blowing burst' 5.*ndiir-in meeRparappp-il kumizhikaL toonR-i uTai-ndtu-koN-T-iru-ndt-ana.* water-GEN surface-LOC bubbles appear-ADVP burst-ADVP-possess-ADVP-be-PAS-3NP 'The bubbles appeared on the surface of the water level and were bursting.'	2.*toRRukku LLaana kuTalvaal* 'the diseased appendix' 3. *kuzhaay* 'tube' 4. *ciRuvan uutikko-NTirunda paloon* 'the balloon the boy was blowing' 5.*kumizhi-kaL* bubbles'	3.*iyandtirattil veppam atikarittataal* 'as the temperature in the machine increased'	3. – 4. – 5.*ndiirin mee-Rparapppil*

Sr. No.	Senses	Example	Arguments		
			Subject	**Reason/ manner**	**Location**
4	Breach (of reiver bank, etc.)	*eerikarai uTai-ndtu veLLam uur-ukkuL puku-ndt-atu* river-bank breach-ADVP flood village-inside enter-PAS-3NS 'The river bank breached and the flood entered the village'	*eerikkarai* 'river bank'	–	
5	Split; break up (of a party, an organization, etc.)	*teertal-il eeRpaT-T-a toolvi-kkup piRaku kaTci uTai-ndt-atu.* election occur-PAS-ADJP failure-DAT after party break-PAS-3NS 'The party split after the failure in the election'	*kaTci* 'party'	*teertalil eeRpaTTa toolvikkup piRaku* 'after the failure in the election'	
6	Burst open (of a boil)	*kaTTi ndanRaakap pazhu-ttu uTai-ndtu-viT-um pool iru-kkiR-atu.* boil well ripe-ADVP burst-leave-FUT as be-PRE-3NS 'The boil appears to be riped well and will bust.'	*kaTTi* 'boil'	*ndanRaakap pazhuttu* 'having riped well'	
7	Break (of voice); break (because of grief)	1.*paakavatar kural utai-ndtu viT-T-atu.* singer's voice break-ADVP leave-PAS-3NS 'The voice of the singer broke' 2. *tan piLLaiyai vazhi anpp-um-pootu avaL kural uTai-ndt-atu.* her child bid farewell-ADJP-while her voice break-PAS-3NS 'Her voice broke while she bid farewell to her child'	1. *paakava-tar kural* 'the singer's vocie' 2. *avaL kural* 'her voice'	1. – 2. *tan piLLaiyai vazhi anppumpootu* 'while she bid farewell to her child'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Reason/ manner**	**Location**
8	Be broken; become heat broken	1. *manaivi iRa-ndt-at-ilirundtu avar mikavum manam uTai-ndtu-poo-y viT-T-aar.* wife die-PAS-GER-from he heart more break-ADVP-go-ADVP-leave-PAS-3EP 'His heart was broken after the death of his wife' 2. *oru veelaiy-um kiTaikk-aat-at-aal avan manam uTai-ndt-aan.* one job-EMP get-NEG-GER-because he heart break-PAS-3MS 'He was heart broken as he did not get any job'	1. *avar manam* 'his heart' 2. *avan manam* 'his heart'	1.*manaivi iRandtatili-rundtu* 'from the death of his wife' 2. *oru veelaiyum kiTaikkaattaal* 'as he did not get any job'	
9	Come into the open (of a secret)	*avan kuTTu uTai-ndt-atu.* his secret break-PAS-3NS 'His secret came into the open'			

The verb *uTai* is an intransitive verb. The verb prototypically denotes the breaking of an object due to pressure applied on it or by hitting it. This is extended to denote breaking of something (a breakable object) by falling from above. The verb is further extended to denote breaking as tube, vessel, etc. due to pressure, breaching of bank of a river, etc. and the bursting open of a boil. The senses 1 to 5 and 6 denote the real bursting or the extensions of bursting. But the senses 5 and 7 to 9 are metaphorical extensions of bursting. The sense 5 denotes the splitting of an organization like a party, etc. The sense 7 denotes the breaking of the voice and the sense 9 denotes 'being heart broken'. The sense 9 is far from the prototypical meaning denoting 'come into the open (as a secret)'. The English equivalents given to each senses itself reveals the range of meaning expansion of *uTai*. Thus *uTai* which can be prototypically equated to English *break* expands its range of meaning covering the meaning area of English burst, breach, split and come into open as a secret. Based on the table given above we can group the co-occurring words of *uTai* into 9 clusters and explain the meaning extension of the verb

based on the semantic features of the co-occurring words which function as the arguments, especially as subject of the verb.

The polysemy associated with this verb can be captured by the semantic structure of verbs proposed by Pustejovsky (1995). His event structure, argument structure, qualia structure (with constitutive role, formal role, telic role and agentive role) and lexical inheritance structure coupled with the type coercion, selective binding and co-composition can capture the poysemic nature of *uTai*[1].

This can be represented as follows:

uTai[1] [NP——]
Subject
Semantic features

***uTai*[2]**

The verb *uTai*[2] is the transitive form of the verb *uTai*[1]. CMTD has listed 13 senses for *uTai*[2]. The following table lists the thirteen senses with their examples. The examples are analysed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ manner**
1	Breaking (by striking with something, by dropping, etc.)	1.*ciRuvan pommaiy-ait taraiy-il viici uTai-tt-aan.* boy toy-ACC floor-LOC throw-ADVP break-PAS-3MS 'The boy broke a toy by throwing it on the floor' 2. *itu kal uTaikk-um iyandtiram.* this stone break-FUT-ADJP machine 'This is a machine for breaking the stone' 3. *kaiyil iru-ndt-a kucciy-ai iraNT-aaka uTai-tt-een.* hand-LOC be-PAS stick-ACC two-ADV break-PAS-1S 'I broke the stick which was in my hand into two'	1. *cuRuvan* 'the boy' 2.*iyandtiram* 'machine' 3. ndaan 'I' 4. *koLLaik-kaararkaL* 'robbers'	1. *pommai* 'toy' 2. *kal* 'stone' 3. *kucci* 'stick' 4. *katavu* 'door'	1. *taraiyil viici* 'by striking on the floor' 2.*iraNTaaka* 'into two'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ manner**
		4. *koLLaikkaararkaL katav-ai uTai-ttu viiTT-iRkuL puku-ndt-iru-kkiR-aarkaL.* door-ACC break-ADVP house-inside enter-ADVP-be-PRE-3HP 'The robbers have entered the house by breaking the door'			
2	Break (grains into pieces)	1. *tirukaiy-il uTai-tt-a ariciy-aik kanji kaaycc-in-aaL* grinder-LOC break-PAS-ADJP rice-ACC gruel boil-PAS-3FS 'She made gruel from the rice broken into pieces by the grinder.' 2. *uTaikk-a-ppaT-T-a taaniyangkaL-ai koozhikaL-ukku uNav-aakak koTu-kkiR-aarkaL.* break-INF-PASS-PAS-ADJP grains-ACC fowel-DAT food-ADV give-PRE-3HP 'They give the ground grains to the fowls.' 3. *makkaaccooLatt-ai uTai-ttut taviTT-uTan tiiniy-il kalakk-avum.* maize-ACC break-ADVP brawn-with fodder-LOC mix-IMP 'Grind the maize into pieces and mix it with the brawn in the fodder.'	1.*avaL* 'she' 2. – 3. –	1.*ariciyai* 'rice' 2. *taaniyang-kaLai* 'grains' 3. *makkaa-ccooLattai* 'maize'	1. *tirukaiyil* 'grinder' 2.– 3.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Instrument/ manner
3	Break (egg, coconut, etc.)	*muTTaiy-ai uTai-ttup paal-uTan kala-ndt-aaL* egg-ACC break-ADVP mix-with mix-PAS-3FS 'She broke the egg and mixed with the milk.'	*avaL* 'she'	*muTTaiyai* 'egg'	
4	Break open (a bundle by snapping the string tied around; open (an envelope, a bottle, etc.)	1. *tuNikaTT-ai uTai-ttu avar ovvonRaaka eTu-tt-aar.* cloth-bundle-ACC break-ADVP he one-by-one take-PAS-3MS 'He broke open the cloth bundle and took one by one' 2. *tapaal-il va-ndt-a kaTitatt-ai appaa uTai-ttup paar-tt-aar.* post-LOC come-PAS-ADJP letter-ACC father break-ADVP see-PAS-3EP 'My father opened the letter which came by the post and saw it'	1. *avar* 'he' 2. *appaa* 'father'	1. *tuNikka TTai* 'cloth bundle' 2. *tapaalil vandta kaTitam* 'the letter came by post'	
5	Break open	1. *tiruTarkaL puuTT-ai uTai-ttu aRai-kkuL nduzhai-ndt-aarkaL.* thief lock-ACC break-ADVP room-inside enter-PAS-3HP 'The thieves broke the lock and entered the room' 2. *caaviy-ait tolai-ttu viT-T-at-aal puuTT-ai*	1. *tiruTarkaL* 'the thieves' 2. –	1. *puuTTu* 'lock' 2. *puuTTu* 'lock'	

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Instrument/ manner
		uTaikk-a veeNTi va-ndt-atu. key-ACC miss-ADVP leave-PAS-GER-because lock-ACC break-INF need-ADVP come-PAS-3NS 'The lock had to be broken as the key was lost.'			
6	Break a shell or pod (of ground nut, etc.) and take the nut	*avan kaTalai ooTT-ai uTai-ttu paruppu eTu-tt-aan* 'He broke the shell of the groundnut and took away the nut' *tuvarai uTaikk-a aaTkaL-ukkuc coll-iy-iru-kkiR-een.*	*avan*	*kaTalait ooTTTai* 'the shell of groundnut'	
7	Split (of pulses)	redgram break-INF persons-DAT say-ADVP-be-PRE-1S 'I have asked the persons to split the red gram'	*aaTkaL* 'prerson'	*tuvarai* 'red gram	
8	Split, break up (a party, an organization, etc.)	*avar engkaL kuuTTuRavu cangkatt-ai uTaikk-a muyaRci-tt-aar.* he our cooperative society-ACC break-INF try-PAS-3EP 'He tried to split our cooperative society'	*avar* 'he'	*engkaL kuuTTuRavu cangkattai* 'our co	
9	Break a strike/ struggle/ agitation	*tiiviravaata kuzhukkaL-ai uTaikk-a putu uttikaL-ai aracaangakm kaiyaaL-um.* extreme groups-ACC break-INF new ideas-ACC government use-FUT. 'The government will use new measures to break the extreme group.s'	*aracu* 'government'	*tiiviravaata kuzhukkaLai* 'extreme groups'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ manner**
10	Make public a secret	1.*avan enn-iTam rakaci-yam-aakac con-n-a vicayatt-ai ndaan pooT-Tu uTai-ttu viT-T-een.* he to-me secretly say-PAS-ADJP matter-ACC I drop-ADVP break-ADVP leave-PAS-1S 'I have made public the matter he told me secretly' 2. *uNmaiy-ai uTai-ttuc coll-i-viT-a veeNT-iy-atu taan.* truth-ACC break-ADVP say-ADVP-leave-INF need-PAS-GER EMP 'The truth has to be made public.'	1. *ndaan* 2. –	1. *avan enniTam rakaciyamaakac conna vicayattai* 'the secret he told me' 2. *uNmaiyai* 'truth'	
11	Break, defy	1.*vaacakarkaL-ai atircci-kku uLL-aakk-a ilakkaNatt-ai uTai-kkiR-aar-aa ivar*? readers-ACC shock-DAT involve-INF grammar-ACC break-PRE-3EP-QUE he 'Is he is defying the grammar to give shock to the readers?' 2. *ivar tiraikkatai ilakkaNatt-ai uTai-tt-a-var.* he cinema-story grammar-ACC break-PAS-ADJP-3EP 'He is the one who defied the grammar of cinema story.'	1.*ivar* 'he' 2.*ivar* 'he'	1.*ilakkaNattai* 'grammar' 2. *tiraikkatai ilakkaNatt-ai* 'grammr of cinema story'	*vaacakarkaLai atirccikku-LLaakka* 'to give shock to the readers'

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Instrument/ manner
12	Solve (a riddle)	*kuRukkezhuttup pooTTip putirkaL-ai uTaikk-a uttikaL colli-tta-ndt-aar* crossword competition puzzles-ACC break-INF ideas say-ADVP-give-PAS-3EP 'He gave me ideas to solve the cross word competition puzzles'	1.*avar* 'he'	1. *kuRukkez-huttup pooTTip putirkaL* 'the cross word puzzles'	
13	Shatter (an illusion, etc.)	*tiraippaTam oru aticayam enRa maayatt-ai tolaikkaaTci alaivaricaikaL uTai-tt-ana.* cinema one surprise that illusion-ACC television channels break-PAS-3NP 'The television channels shattered the illusion that the cinema is a surprise'	*tolaikkaaTci alaivaricai-kaL* 'television channels'	*tiraippaTam oru aticayam enRa maayattai* 'the illusion that the cinema is a surprise'	

CMTD has listed thirteen senses for *uTai*[2]. The meanings of *uTai*[2] ranges from the prototypical sense of 'break (by striking with something, by dropping, etc.)' to 'shatter (an illusion, etc.)' via the following senses: 'break (grains into pieces)', 'break (egg, coconut, etc.)', 'break open (a bundle by snapping the string tied around; open (an envelope, a bottle, etc.)', 'break open', 'break a shell or pod (of ground nut, etc.) and take the nut', 'split (as pulses)', 'split, break up (a party, an organization', 'break a strike/ struggle/agitation', 'make public (a secret, hidden fact, etc.; disclose)', 'break; defy', 'solve (a riddle)' and 'shatter (an illusion, etc.)'

The verb *uTai*[2] is the transitive form of *uTai*[1]. As we have seen from the tables CMTD has listed 9 senses for *uTai*[1] and 13 senses for *uTai*[2]. We can find parallels between the senses if we compare the tables. Breaking (by striking with something, by dropping, etc.) is the prototypical meaning of *uTai*[2] from which other 12 meanings can be derived or arrived at. The senses 1 to 8 denote real action and the senses 9 to 13 are abstract or metaphorical actions.

The prototypical meaning of breaking something by striking with something, by dropping, etc. extends its meaning to cover different types of breaking such as breaking grains into

pieces, breaking egg, coconut, etc., breaking open a bundle by snapping the string tied around it, breaking open an envelope, a bottle, etc., breaking open a lock and breaking a shell or pod of ground nut, etc. It is interesting to note that the English equivalents of senses 1 to 6 are 'break' only. The verb *uTai*^{2} also covers the semantic area denoting splitting of pulses. Metaphorically *uTai*^{2} extends its meaning to cover splitting or breaking of a party, organization, etc. breaking of a struggle, breaking open a secret to make it known to others and breaking the rules and regulations. The meaning is further extended metaphorically to denote solving a riddle and shatter an illusion, etc.

The following frame of *uTai*^{2} based on Pustejovsky's principles of generative lexicon, shows us that there are two events involved in *uTai*^{2}; one is the process or act of breaking and the other is resultant state arrived at after being broken. As we have noted already the meaning extension depends on the co-occurring words especially the words functioning as the object of the verb.

$$
\left[\begin{array}{ll}
\textit{uTai}^{2} & \\
\text{EVESTR} = & \left[\begin{array}{l}
\text{E1: e1:process} \\
\text{E2: e2: state} \\
\text{RESTR} = \langle\ ? \\
\text{HEAD} = \text{e1}
\end{array}\right] \\
\text{ARGSTR} = & \left[\begin{array}{ll}
\text{ARG1} & \boxed{1} \\
\text{ARG2} & \boxed{2}\ \ \text{physobj} \\
 & \text{FORMAL}
\end{array}\right] \\
\text{QUALIA} = & \left[\begin{array}{l}
\text{Default-causative-lcp} \\
\text{FORMAL} = \textit{uTai}_\text{result (e2, } \boxed{1}\ \text{)} \\
\text{Agentive} = \textit{uTai}_\text{act (e1, } \boxed{1}\text{, } \boxed{2}\ \text{)}
\end{array}\right]
\end{array}\right]
$$

4.3.14. uuRu

The form *uuRu* is given two entries in CMTD. The first one is a verb and the second one is a noun. The dictionary has listed 5 senses for the verb *uuRu*. They have been tabulated below with examples and the examples are analysed for argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Reason**	**Location**
1	Spring (as water); secrete (as saliva, enzyme, etc.)	1.*kiNaRR-il ndiir uuR-aTTum, piRaku taNNiir iRaikk-alaam*. well-LOC water sp 'Let the water spring from the well; after that water can be bailed out.' 2. *macaalaav-in vaacanaiy-aal vaay-il ndiir uuRu-kiR-atu.* curry-power's smell-because mouth-LOC saliva secrete-PRE-3NS 'The salaiva secretes from the mouth by the flavour of curry power.'	1. *ndii 'water'* 2. *ndiir* 'water'	1. – 2.*macaalaavin vaacanaiyaal*	1. *kiNaRRil* 'in the well' 2. *vaayil* 'in the mouth'
2	Be soaked (as cereals, etc)	1. *arici uuR-i-viT-Tat-aa enRu paar*? rice solak-ADVP-leave-PAS-GER-QUE that see 'Please see whether the rice is soaked.' 2. *injciy-ait teen-il uuR-a-vai-ttuc caappiT-a veeNT-um.* jinger-ACC honey-LOC soak-INF keep-ADVP eat-INF need-FUT 'The jinger should be eaten after soaking it in honey'	1. *arici* 'rice' 2. *inji* 'jinger'	1. – 2. –	1. – 2. *teenil* 'in honey'
3	Be soaked (as cloaths)	*kuLi-kkiR-a vaaLiy-il caTTaiy-ai uuR-a vai-tt-iru-pp-atu yaar?* bathe-PRE-ADJP bucket-LOC shirt-ACC soak-INF keep-ADVP-be-FUT-GER who. 'Who has soaked the shirt in the bucket meant for bathing?	*caTTai* 'shirt'	–	*kuLikkiRa vaaLiyil* 'in the bucket for bathing'

Sr. No.	Senses	Example	Arguments		
			Subject	**Reason**	**Location**
4	Spread (as water, ink, etc) on a surface (such as cloth)	*indak kaakitattil mai uuRukiRatu.* 'The ink spread in this paper'	mai 'ink'	–	indak kaakitattil 'in this paper'
5	Be soaked or immersed (in habits); be steeped in	1.*pazhaiya pazhakka vazhakkangkaL-il uuR-i-viT-T-a engkaL-aal putiya pazhakkatt-ai eeR-Ru-kkoLL-a muTiy-a-villai* old habits-LOC soak-ADVP-leave-PAS-ADJP we-INS new habit-ACC accept-ADVP-possess-INF can-INF-not 'As we are soaked in the old habits, we could not accept the new habits' 2.*taan col-v-atu eppootum cariyaakavee irukk-um en-kiR-a eNNam avar uLLatt-il uuR-ip-poo-y iru-kkiR-atu.* self say-FUT-GER always correct be-FUT say-PRE-ADJP thought their mind-LOC soak-ADVP-go-ADVP-be-PRE-3NS 'The thought that what he tells is always correct is soaked in his mind' 3. *teecappaRRu en-p-atu avar irattatt-il uuR-ip-poo-y-viT-Ta onRu.* patriotism say-FUT-GER his blood-LOC soak-ADVP-go-ADVP-leave-PAS-ADJP one 'Patriotism is the one which is soaked in his blood'	1.*ndaangkaL* 'we' 2. *taan colvatu eppootum cariyaakavee irukkum enRkiRa eNNam* 'the thought that what he tells is always correct' 1. *teecap paRRu* 'patriotism'	1. –	1.*pazhaiya pazhakka vazhakkangkaLil* 'in the old habits' 2. *avar uLLattil* 'in his mind' 3. *avar irattattil* 'in his blood'

CMTD has listed five senses for *uuRu*. They are 'spring (as water); secrete (as saliva, enzyme, etc.)', 'be soaked (as cereals, etc.)', 'be soaked (as clothes)', 'spread (as water, ink, etc.) on a surface (such as cloth), 'be soaked or immersed (in habits); be steeped in'.

The verb *uuRu* prototypically means 'secrete as saliva; spring as water'. The first sense itself appears to be a combination of two senses. The senses 1 to 4 are real ones and the firth is metaphorical. The senses 2 to 5 are different denoting 'be soaked into something'. They are not logical extensions from the first one. English considers the first and the rest as different senses. The second sense is 'be soaked as rice' and the third one is 'be soaked as cloth'. The third can be considered as extensions of the second. The fifth sense is the metaphorical extension of the second sense. The fourth sense cannot be considered as the logical extension of neither the first sense nor the second sense as it denotes 'spread (as water, ink, etc.) on a surface (such as cloth)'.

The verb *uuRu* is intransitive. The meaning extension can be captured by the semantic features of the subject argument, the reason argument and the location argument. This can be represented as follows:

uuRu	[NP	+ NP	+ NP---]
	Subject	Reason	Location
	+ Semantic features	+Semantic features	+Semantic features

4.3.15.uuRRu

There are two entries for *uuRRu* in CMTD. The first one is a verb and the second one is a noun. Six senses are listed for *uuRRu*. They are tabulated below with examples and the examples are analysed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/beneficiary / manner**
1	Pour (water or other liquids)	*taNNiir-aik kiizhee uuRR-in-aaL.* water-ACC down pour-PAS-3FS 'She pour down the water.'	*avaL* 'she'	*taNNiirai* 'water'	*kiizhee* 'down'
2	Fill (something with liquids)	1. *peenaav-il mai uuRR-u.* pen-LOC ink pour-IMP 'Pour ink in the the pen' 2. *avar kaNNaaTik kuva-Laiy-il matu uuRR-in-aar* he glass tumbler-LOC liquor pour-PAS-3EP 'He poured liquor in glass tumbler.'	1. *ndii* 'you'	1.*mai* 'ink' 2. *matu* 'liquor'	1. *peenaavil* 'in the pen 2. *kaNNaaTik kuvaLaiyil* 'in the glass tumbler'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/beneficiary / manner**
3	Water (the plants)	*ceTikaL-ukkut taNNiir uuRR-in-aay-aa*? plants-DAT water pour-PAS-2S-QUE 'Did you pour water to the plans?'	*ndii* 'you'	*taNNiir* 'water'	*ceTikaLukku* 'to plants'
4	Come out profusely (of rain); pour down	1. *veTTukkaayatt-ilirundtu irattam uuRR-iy-atu* wound-from blood come-out-PAS-3NS 'The blood came out profusely from the wound.' 2. *vaanam kizhi-ndt-atu-pool mazhai uuRR-iy-atu.* sky tear-PAS-GER as rain pour-down-PAS-3NS 'It poured down as if the sky is torn'	1.*irattam* 'blood' 2. *mazhai* 'rain	–	1.*veTTukkaaya-ttilirundtu* 'from the wound' 2. *vaanam kizhi-ndt-atu-pool* 'as if the sky is torn'
5	Pour (batter to make dosa)	1.*aindtaavatu toocai uuRRu-kiR-een.* firth dosa pour-PRE-1S 'I am pouring for the firth dosa.' 2. *iTTali uuRR-aa-mal engkee poo-n-aay*? idli pour-NEG-ADVP where go-PAS-2S 'Where did you go without pouring for idli?'	1.*ndaan* 'I' 2. *ndii* 'you'	1.*aindtaavatu toocai* 'fifth dosa' 2. *iTTali* 'idli'	
6	Spill; splash	*arici vaTikk-um-pootu kanjciy-aik kaal-il uuRR-i-kkoN-T-aaL.* rice drain-FUR-ADJP-while rice-water leg-LOC spill-ADVP-possess-PAS-3FS 'She has spilled rice water on the leg while draing '	*avaL* 'she'	*kanjci* 'rice water'	*arici vaTikkumpootu* 'while draining'

CMTD has listed six senses for *uuRRu*. The meaning of the verb ranges from 'pour (water or other liquids)' to 'spill; splash' via the senses 'fill (something with liquids), 'water (the plants)', 'come out profusely (of rain); pour down', 'pour (batter to make dosa)' and 'spill; splash'

The verb *uuRRu* is the transitive form of the verb *uuRu*. In CMTD, five senses are listed for *uuRu* and six senses are listed for *uuRRu*. But there are no parallels between them. The prototypical or the first sense listed in CMTD for *uRRu* is pour down water or a liquid. All the senses are real senses and there is no metaphorical or abstract sense. From the prototypical sense of **'**pour (water or other liquids)' the verb extends it meaning to cover the senses such as 'fill a container with a liquids', 'water or pour water to the plants', 'come out profusely like blood from wound', 'pour down like rain', 'pour batter to make *dosa'* and 'spill or splash something'.

The arguments of verbs which are realized as NPs assume functions such as subject, object, beneficiary, source (location) and target location. The semantic features of the argument NPs are responsible for the selection of the above listed six senses. This can be represented as follows.

uuRRu	+NP	+NP	+NP	+NP
	+Subject	+Object	+Beneficiary	+Location (source/target)
	+Semantic features	+Semantic features	+Semantic features	+Semantic features

The frame work based on Pustejovsky's generative principles given below can capture the polysemy of *uuRRu*.

$$\begin{bmatrix} \textit{eeRRu} & \\ \text{EVESTR} = & \begin{bmatrix} \text{E1: e1:process} \\ \text{E2: e2: state} \\ \text{RESTR} = \langle\ ? \\ \text{HEAD} = \text{e1} \end{bmatrix} \\ \text{ARGSTR} = & \begin{bmatrix} \text{ARG1} \boxed{1} \\ \text{ARG2} \boxed{2} \begin{bmatrix} \text{physobj} \\ \text{FORMAL=entity} \end{bmatrix} \end{bmatrix} \\ \text{QUALIA} = & \begin{bmatrix} \text{Default-causative-lcp} \\ \text{FORMAL} = \textit{eeRu}\text{_result (e2, } \boxed{2} \text{)} \\ \text{Agentive} = \textit{eeRRu}\text{_act (e1, } \boxed{1} \text{, } \boxed{2} \text{)} \end{bmatrix} \end{bmatrix}$$

4.3.16.eTu

There are two entries of *eTu* in CMTD. The first one is a verb and the second one is an auxiliary verb. CMTD has given 42 senses for *eTu*. They have been listed below in the table with their examples. They have been analysed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Reason/manner /location
A. Usages related to changing one's position					
1	Take something with finger, hand/ lift something	1. *taraiyil paLapaLappaaka kiTandtataik kunindtu eTuttup paarttaan.* 'He took the glittering object lying on the floor and looked at it' 2. *vaNTiyilirundtu caamaankaLai eTuttu uLLee vai* 'Take the luggages from the cart and keep them inside' 3. *azhukiRa kuzhandtaiyai eTukkaamal engkee pooyviTTaL*? 'Where did she go without taking the child' 4. *andta kaalattil aaciriyar pirampai eTuttaal maaNavarkaL ndaTungkuvaarkaL* 'In those days the students would shiver as soon as the teacher took the cane' 5. *vaaL eTuttup pooriTat teriyaata viiran* 'The warrior who does not know how to lift a sword and fight.'	1. *avan* 'he' 2. *ndii* 'you' 3. *kuzhan-dtai* 'child' 4. *aaciriyar* 5. *viiran* 'warrior'	1.*paLapa Lappaaka kiTandtatai* 'the glittering object that was lying' 2. *caamaan-kaLai* 'luggages' 3. *azhukiRa kuzhandtaiyai* 'child' 4. *pirampai* 5. *vaaL* 'sword'	1.*taraiyil* 'on the floor' 2. *vaNTiyiliru-ndtu* 'from the cart' 3. – 4. *andta kaalattil* 'in those days'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
2	Assume (specified form, role, etc.)	1.*vipattil tappiyatu maRupiRavi eTuttatupool irundtatu.* 'The escape from the accident seems like taking a rebirth' 2. *taNNiir piraccanai visvaruupam eTutuLLatu.* 'The water problem has taken up a gigantic proportion' 3. *tirumaal eTutta pattu avataarangkaLil onRu kirushNaavataaram* 'One of the incarnations taken by Lord Thirumal is the incarnation as Lord Krishna.' 4. *indtap paTattil avar villanaaka avataaram eTuttuLLaar* 'In this movie, he took/ assumed the role of a villan.'	1. – 2. *taNNiir piraccanai* 'water problem' 3. *tirumaal* 'Lord Thirumal' 4. *avar* 'he'	1. *maRupiRavi* 'rebirth' 2. *visvaruupam* 'giganitc proportion' 3. *pattu avataarangkaL* 'ten incornations' 4. *avataaram* 'role'	1. – 2. – 3. – 4. *indtap paTattil* 'in this movie'; *villanaaka* 'as villain'
3	Extract	1.*tayirai kaTaindtu veNNai eTuppataik kiraamattil inRum paarkkalaam.* 'One can see in the village the practice of extracting butter by churning the curd.' 2. *karumpilirundtu caaRu eTuttu vellam, jiini poonRavaRRait tayaarikkiRaarkaL* 'They are preparing jiggery, sugar, etc by extracting juice from the sugar cane.'	1. – 2. *avarkaL* 'they' 3. *avarkaL* 'they' 4. –	1. *veNNai* 'butter' 2. *caaRu* 'juice' 3. *kiizhaan-delliyilirundtu* 'from *kizhaandelli'* 4. *ndooy etirppu caktikkaana cila marundtukaL* 'certain medi-cines meant for fighting against diseases	1. *tayiraik kaTaindtu* 'by churning the curd' 2. *karumpil-irundtu* 'from the sugar cane' 3.*manjcaL kaamaalaikku* 'for joundice' 4.*vilangkukaLin uTalilirundu* 'from the body of the animals'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		3.*kiizhaanelliyilirundtu manjcaL kaamaalaikku marundtu eTukkiRaarkaL* 'The are extracting medicine for jaundice from Kizhanelli' 4. *ndooy etirppu caktikkaana cila marundtukaL vilangkukaLin uTalilirundtu eTukkap paTukinRana.* 'Certain medicines meant for fighting against diseases are extracted from the body of the animals'			
4	Move (one's hand, leg from a specified position); remove; take off	1. *vazhiyil kaal ndiiTTi-kkoNTirukkiRaayee, kaalai eTu.* 'You are keeping your leg on my way; move it. 2.*tooLil vaittirundta kaiyai eTukkaamaleeyee ndaTandtu vandtaar.* 'He was walking without taking away the hand on his shoulder' 3. *avaL meelirundu kaNNai eTukka muTiyavillai.* 'I could not take away the eyes on her'	1. *ndii* 'you' 2. *avar* 3. –	1. *kaalai* 'the leg' 2. *tooLil vaittirundta kaiyai* 'the hand on the shoulder' 3. *kaNNai* 'eye'	1. – 2. – 3.*avaL meelitundtu* 'from her'
5	Get somebody released on bail	1. *ennai veLiyil eTukka yaarum varavillai enRu andtak kaiti pulampinaan.*	1. *yaarum* 'nobody' 2. *avar*	1. *ennai'me'* 2. *tiruTTu vazhakkil kaitu*	1. *veLiyil* 'outside (on bail)'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		'The prisoner lamented that nobody came to release him on bail.' 2. *tiruTTu vazhakkil kaitu ceyyappaTTa tampityai jaaminil eTuppataRkaaka avar muyanRu varukiRaar.* 'He is trying to release his brother who is arrested on theaft case.'		*ceyyappaTTa tampiyai* 'the brother who was arrested on theaft case'	
B. Usages related to possession					
6	Purchase (something)	1. *tiipaavaLikkut tuNi eTuttu viTTiirkaLaa*? 'Did you purchase cloths for Diwali?' 2. *maram eTukkak kollattukkup pooyirukkiRaar* 'He has gone to Kollam for purchasing wood.' 3. *payNacciiTTu eTuppataRkaaka elloorum varicaiyil ndi-nR-iru-ndt-aarkaL* 'They were standing in the queue to purchase journey ticket.' 4. *ulakap pukazhpeRRa ooviyam onRaip pala kooTi ruupaaykkup pirapala tozhilatipar eelattil eTuttirukkiRaar.* 'A famous industrialist purchased a world famous portrait for many cores of rupees on lease.'	1.*ndiingkaL* 'you' 2. *avar* 'he' 3. *avarkL* 'they' 4. *pirapala tozhilatipar* 'a famous industrialis'	1.*tuNi* 'cloth' 2. *maram* 'wood' 3.*payaNacciiTTu* 'journey ticket' 4. *ulakap pukazhpeRRa ooviyam onRai* 'a world famous portrait'	1. *tiipaava-Likku* 'for Diwali' 2. – 3. – 4. *pala kooTi ruupaaykkup* 'for many crores', *eelattil* 'on lease'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
7	Take something for oneself; withdraw	1.*paalkaararukkuk koTukka vaittirundta aimaptu ruupaayil pattu ruupaayai yaar eTuttatu.* 'Who has taken ten rupees from the fifty rupees kept for giving to the milkman?'	1. *yaar* 'who' 2. *ndii* 3.- 4.*ndii* 'you'	1.*patturuupaayai* 'ten rupees' 2. *irunduuRu* 'two hundred' 3. *paNam* 'money' 4. *cuLai* 'segment in jackfruit'	1. *paalkaa-rarukkuk koTukka vaittirundta aimaptu ruupaayil* 'from the fifty rupees kept for giving to the milkman' 2. *atilirundtu* 'from that' 3. *engkaL vangkiyil* 'in our bank' 4. *palaapazha-ttilirundu* 'from jack fruit'
		2.*peTTiyil aayiRam ruupaay vattirukkiReen. atilirundtu irunduuRu eTuttukkoL.* 'I have kept thousand rupees in the box. Take two hundred from it. 3.*engkaL vangkiyil paNam pooTavum eTukkavum aakum ndeeram cila ndimishangkaL taan.* 'Only a few minutes of time will be taken to remit and draw money from our bank.' 4. *palaapazhattilirundu cuLaiyai eTuttukkoTu.* 'Take out the pulp segment from jack fruit.'			
8	Obtain; take out (by means of digging or immercing)	1. *ndeyveeliyil eTukkappaTuvatu pazhuppu ndilakkariyaakum.* 'The coal taken out in Neyveli is purple coal' 2. *vaLaikuTaa ndaaTukaLil taan atika aLavil eNNey eTukkappaTukiRatu*	1. – 2. – 3. *avarkaL* 'they'	1.*pazhuppu ndilakkari* 'purple coal' 2. *eNNey* 'oil' 3. *cangku* 'shell'	1.*ndeyveeliyil* 'in Neyveli' 2. *vaLaikuTaa ndaaTukaLil taan* 'only in Gulf countries; *atika aLavil* 'more in quantity'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		'The oil is obtained more in Gulf countries.' 3. *kaTalil muuzhkic cangku eTuppavarkaL* 'the persons who obtain shells by immersing in the deep see'			3.*kaTalil muuzhki* 'by immersing in sea'
9.	Score (marks, points etc.)	1.*kaNakkup paaTattil culapamaaka nduuRRuku nduuRu eTukkalaam.* 'One can easily score hundred out of hundred in mathematics' 2.*caccin TeNTulkar pattonpatu pandtukaLil irupatu ooTTangkaL eTuttu aaTTam izhandtaar.* 'Sachin Tendulkar scored twenty runs in nineteen balls and lost play'	1. – 2. *caccin TeNTulkar* 'Sachin Tendulkar'	1. *nduuRRuku nduuRu* 'hundred out of hundred' 2. *irupatu ooTTangkaL* 'twenty runs'	1.*kaNakkup paaTattil* 'in mathematics subject'; *culapamaaka* 'easily' 2.*pattonpatu pandtukaLil* 'in nineteen balls'
10	Earn (profit, etc.)	1.*paTam cariyaaka ooTaatataal pooTTa paNattai avaraal eTukka muTiyavillai* 'As the movie did not run well, he could not earn the money he had invested on it' 2. *indta varuTamaavatu etirpaartta aLavu laapattai eTukka muTiyumaa*?' 'Is it possible to earn the expected amount of profit at least this year?'	1. *avar* 'he' 2. –	1.*pooTTa paNattai* 'the money invested' 2.*etirpaartta aLavu laapattai* 'the expected amount of profit'	1. *paTam cariyaaka ooTaatataal* 'as the movie did not run well' 2.*indta varuTamaa-vatu* 'at least this year'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
11	Hire (a house, vehicle, etc.)	*vaaTakaikku viiTu eTuttut tangkiyirukkiRaar* 'He is staying in a house which has been hired for rent.'	*avar* 'he'	*viiTu* 'house'	*vaaTa-kaikku* 'for rent'
12	avail (leave)	1.*ndaNpanin tirumaNattiRkaaka muunRu ndaaTkaL viTuppu eTuttirukkiReen* 'I have availed leave for three days for my friend's marriage' 2.*tozhilaaLikaL aTikkaTi viTuppu eTuttaal uRpatti paatikkappaTum.* 'The production will be affected if the workers take leave often'	1. *ndaan* 'I' 2. *tozhilaa-LikaL* 'workers'	1.*viTuppu* 'leaver' leave' 2. *viTuppu* 'leave'	1.*ndaNpanin tiruma-NattiRkaaka* 'for my friend's marriage'; *muunRu ndaaTkaL 'three days'* 2. *aTikkaTi* 'often'
13	Receive (a channel on radio or television)	1.*tuurtarshan ndeeRRilirundtu cariyaakavee eTukkavillai* 'The *doordarshan* channel is not receiving properly from yesterday.' 2. *ungkaL vaanoliyil tirucci paNpalai eTukkiRataa*? 'Is your radio receiving Trichy frequency?'	1.*tuurtar-shan ' door-darshan* channel' 2.*tirucci paNpalai* 'Trichy frequency'	1. – 2. –	1.*ndeeRRi-lirundtu* 'from yesterday'; *cariyaakavee* 'properly' 2. *ungkaL vaanoliyil* 'in your radio'
14	Take (treatment)	1. *pattu ndaaL cikiccai eTuttukkoNTtaaltaan ndaan teeRi irukkiReen* 'I have improved as I have taken treatment for ten days'	1. *ndaan* 'I' 2.*ndiingkaL*	1. *cikiccai* 'treatment' 2. *cikiccai* 'treatment'	1. *pattu ndaaL* 'ten day' 2. *yaariTam* 'from whom'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		2. *yaariTam ndiingkaL cikiccai eTuttuk koLkiRiirkaL*? 'From whom are you taking treatment?			
15	Take (without permission); fetch	1.*aracaangkap paNattai eTuttataRkaaka avar miitu vazhakkup pooTappaTTatu.* 'A case has been filed on him for taking government's money.' 2.*en paNattai yaaroo eTuttukkoNTu pooyviTTaarkaL* 'Somebody has taken away my money'	1.*avar* 'he' 2.*yaaroo* 'somebody'	1. *aracaangkap paNattai* 'government money' 2. *en paNattai* 'my money'	
	C Usage related to collection				
16	Take or collect (measure-ment, data, etc.)	*jannalkaLukkut tirai pooTa aLavu eTukka veeNTum.* 'Measurement has to be taken to put curtains to the windows.'	1. –	*aLavu* 'measurement'	*jannalkaLukkut tirai pooTa* 'for putting curtains to the windows'
17	Collect, pick, gather	1.*kuLattil taNNiir eTukkap pookal-aamaa*? 'Shall we go to tank to fetch water?' 2. *parutti eTukka aaTkaL varukiRaarkaL.* 'People are coming to pick cotton' 3. *ndeeRRu kuppai eTuppavarkaL yaarum varaveeyillai.* 'No garbage-collectors came yesterday'	1. *ndaam* 'we' 2. *aaTkaL* 'people' 3. *yaarum* 'nobody' 4. *puu* 'flower'	1. *taNNiir* 'water' 2. *parutti* 'cotton' 3. *kuppai* 'garbage' 4. –	1.*kuLattil* 'in pond' 2. - 3.- 4.-

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		4. *tooTTattilirundu puu eTuttu vandtu puujai ceyvatu vazhakkam.* 'It is a habit to gather flowers from the garden and do the worship' 5.*munpellaam calavait tozhilaaLarkaL viiTu viiTaakac cenRu tuNi eTuppaarkaL* 'In the early days, the washermen used to collect clothes by visiting each house.'			
18	Look up (in a book, etc.)	*aimpataam pakkattai eTu* 'Take the fiftieth page'	1.*ndii* 'you'	1. *aimpataam pakkam* 'fiftieth page'	
19	Borrow (from a literary work, film, etc.)	1. *indta uttiyai oru pirenjcu ndaavalilirundtu eTuttukkoNTeen* 'I have taken this technique from a French novel' 2. *indta meeRkooL kampa raamaNattilirundtu eTuttatu enRaar.* 'He told that this example/quotation has been taken from Kampa Ramayam'	1.*ndaan* 'I' 2.*avar* 'he'	1.*indta uttiyai* 'this technique' 2.*indta meeRkooL* 'this example/ quotation'	1.*oru pirenjcu ndaavalilirun-dtu* 'from a French novel' 2. *kampa raama-Nattilirundtu* ' From Kampa Ramayanam'
20	Choose; take	1. *tuNaip paaTamaaka avar camaskirutattai eTuttup paTikki-Raar.* 'He is studying Sanskrit taking it as a subsidiary subject.'	1.*avar* 'he' 2. –	1. *camaskiru-tattai* 'Sanskrit' 2.*kuLirpaanag-kaLin maatiri-kaL* 'the samples of the cold drinks'	1. *tuNaip paaTamaaka* 'subsidiary subject' 2. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		2. *kuLirpaanagkaLin maatirikaL eTukkappaTTu paricootanaikku anuppappaTTuLLana* 'The samples of the cold drinks have been taken and send for testing.'			
D Usages related to Creation					
21	Build (a temple); construct (a wall)	1. *raajaraajan tanjcaiyil kooyil eTuttaan.* 'Rajarajan built a temple in Thanjavur.' 2. *engkaL viiTTai cuRRi cuvar eTukka irpataayiram ruupaay aayiRRu.* ``It took twenty thousand rupees to construct a wall surrounding our house'	1. *raaja-raajan* 'Rajarajan' 2. *ndaang-kaL* 'we'	1.*kooyil* 'temple' 2. *cuvar* 'wall'	1. *tanjcaiyil* 'in Thanjavur' 2. *engkaL viiTTai cuRRi* 'surrounding our house'
22	Produce (a movie etc.); take (a photograph)	1. *tiraippaTak kalluuri maaNavar oruvar eTutta kuRumpaTam itu.* 'This is short film produced by a student of film institute.' 2. *indta viNNappattai pirati eTuttu vaittukkoL* 'Take a copy of this application and keep it' 3. *itu ndaan poona varuTam eTuttukoNTa pukaippaTam.* 'This is a photo which has been taken by me last year'	1. *tiraippa-Tak kalluuri maaNavar oruvar* 'a student of the film institute' 2. *ndii* 'you' 3. *ndaan* 'I'	1. *kuRum-patam* 'short film' 2. *indta viNNappattai pirati* 'copy of this application' 3. *pukaippa-Tam* 'photo'	1. – 2. – 3. *poona varuTam* 'last year'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
23	Make (a parting in the hair)	*een tiTiirenRu ndeer vakiTu eTuttirukkiRaay* 'Why did you make a straight parting of the hair suddenly?'	*ndii* 'you'	*ndeer vakiTu* 'straight parting of the hair'	*tiTiirenRu 'suddenly'*
E Usage related to removing					
24	Dispose of (the dead body)	*muutta makan varumvarai taayin uTalai eTukkaamal vaittirundaarkaL.* 'They kept the mother's body without disposing till the arrival of the elder son.'	*avarkaL* 'they'	*taayin uTalai* 'mother's body'	*muutta makan varumvarai* 'till the arrival of the elder son'
25	remove	1. *een miicaiyai eTuttuviTTaay*? 'Why did you remove the mustache?' 2. *kuzhaayil irukkum aTaippai eTutta piRaku taNNiir ozhungkaaka varukiRatu.* 'The water comes correctly after removing the block in the pipe' 3. *kai kaalai eTuttuviTuveen' enRu avan miraTTinaan.* 'He threatened that he would remove the arm and leg' 4. *makanuTaiya ciRu ndiirakangkaLil onRai eTuttu avarukku vaittirukkiRaarkaL.* 'They had removed one of the kidneys of his son and implanted in his body.'	1. *ndii* 'you' 2. – 3. *avan* 'he' 4. *avarkaL* 'they'	1. *miicaiyai* 'mustache' 2. *kuzhaayil irukkum aTaippai* 'the block in the pipe' 3. *kai kaalai* 'arm and leg' 4. *makanuTaiya ciRu ndiirakangkaLil onRai* 'one of the kidneys of his son'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
26	Remove; disentangle	*nduulil vizhundtuviTTa muTiccai eTukka araimaNi ndeeramaa*? 'Does it take half an hour to remove the knot in the thread?'	1.*ndii* 'you'	1.*nduulil vizhundtuviTTa muTiccai* 'the knot in the thread'	1.*araimaNi ndeeramaaka* 'for half an hour'
27	Withdraw; lift; change	1.*matuvilakku eTuppatu paRRi oru teLivaana muTivu veeNTum.* 'There should be a clear decision about lifting the prohibition of liquor' 2. *inRooTu andta tiraippaTattai eTuttu viTuvaarkaL* 'They will withdraw the movie from today'	1. – 2. –	1.*matuvilakku* 'prohibition of liquor' 2. *andta tiraippaTattai* 'that movie'	1. – 2. *inRooTu* 'from today'
28	Exorcise	*pakkattu viiTTukkaari vaitta ceyvinaiyai eTuppataRkaaka ammaa puucaariyiTam pooyirukkiRaaL* 'Mother has gone to the priest to banish the black magic kept by the woman from the neighbouring house.'	–	*pakkattu viiTTukkaari vaitta ceyvinaiyai* 'the black magic kept by the woman from the neighbouring house'	
F Usages related to undertaking					
29	Take (somebody into custody)	1. *ndakaikkaTaik koLLaiyil campandtappaTTa oru ndapar kaavalil eTukkappaTTaar.* 'A person associated with robbery in jewellery shop is taken into police custody'	1. – 2. – 3. –	1.*ndakakkaTaik koLLaiyil campandta-ppaTTa oru ndapar* 'a person associated with robbery in a jewellery shop'	1. – 2. *kaavalil* 'into the police custody'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
		2.*nditindiRuvana moocaTiyil iiTupaTTavavarai aindtu ndaaL pooliis kaavalil eTukka ndiidimanRam anumatittatu.* 'The court had given permission to take the person who was involved in the finance office cheating into the police custody for five days.'		2.*nditindiRuvana moocaTiyil iiTupaTTavavarai* 'the person who was involved in the finance office cheating'	3. *aindtu ndaaL pooliis kaavalil* 'into police custody for five days'
30	Take (a decision)	*amaiccaravaik kuuTTam eTutta muTivaip pattirikaikaL virivaaka vimarcittirundtana.* 'The newspapers have criticised in details on the decision taken by the meeting of the ministry.'	*amaiccaravaik kuuTTam* 'the meeting of the ministry'	*muTivai* 'decision'	
31	Take (action, effort, etc.)	1.*avanukkaaka ndaan eTuttukkoNTa muyaRcikaL anaittum viiN* 'The efforts I have taken for him are waste' 2.*viraivil ndTavaTikkai eTukka iruppataaka manu koTuttavarkaLiTam amaiccar uRutiyaLittaar* 'The minister promised to the persons who gave the application that the measures are going to be taken soon' 3. *eTutta kaariyattai muTittuviTa veeNTum.* 'The matter untaken has to be completed.'	1. *ndaan* 'I' 2. *amaiccar* 'minister' 3. –	1. *muyaRcikaL* 'efforts' 2. *ndTavaTikkai* 'measures' 3. *kaariyattai* 'matter'	1.*avanukkaaka* 'for him' 2. *viraivil* 'soon' 3. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
32	Take (an oath, pledge, etc.)	1. *putiya amaiccarkaL ndeeRRu patavip piramaaNam eTuttukoNTanar* 'The new ministers have taken oath of office yesterday.' 2. *inimeel kuTippatillai enRu avan uRutimozhi eTuttukkoNTaan.* 'He took the oath that he would not drink liquor from now' 3. *avar taan eTutta capatattai ndiRaiveeRRum varai ooyappoovatillai enRaar.* 'He told that he would not take rest till he fulfils the pledge he had taken.'	1.*putiya amaiccar-kaL* '*new* ministers' 2. *avan* 'he' 3. *avar* 'he'	1.*patavip piramaaNam* 'oath of office' 2. *uRutimozhi* 'oath' 3. *capatattai* 'pledge'	1. *ndeeRRu* 'yesterday' 2. *inimeel kuTippatillai enRu* 'now onwards (he) will not drink'
G	**Other usages**				
33	Take (medicine, etc.)	*indta marundtai oru aRupatu ndaaL toTarndtu eTuttukkoNTaal caLip piraccanai varaatu.* 'If one takes this medicine continuously for sixty days he will not have the problem of cold'	–	*indta marundtu* 'this medicine'	*oru aRupatu ndaaL toTarndtu* 'continuously for sixty days'
34	Start (a vehicle) take or use (a vehicle)	'*ndeeramaayiRRu vaNTiyai eTungkaL' enRu ndaTattunar kuuRinaar.* 'The conductor told, 'It is time, start the vehicle.'	*ndiingkaL* 'you'	*vaNTi* 'vehicle'	–

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
35	Take (time)	*itai muTippataRku ndiRaiya ndeeram eTuttuviTTatu.* 'Lot of time has been taken for completing it.'	–	*ndiRaiyandeeram* 'lot of time'	*itai muTi-ppata-Rku* 'for completing it'
36	Give (the amount mentioned)	*ndaan peeram peeciyatum kaTaikkaaran 'pattu ruupaay eTungkaL' enRu kaT aiciyil kuuRinaan.* 'After bargaining, the shop keeper told me at last 'Give ten rupees.'	–	–	*pattu ruupaay* 'ten rupees'
37	Be effective; appeal to some one	*en peeccu angkee eTukkumaa enRu teriyavillai.* 'It is not known whether my appeal will be effective there.'	–	*en peeccu* 'my appeal'	*angkee*
38	Go well with something	*kaRuppu ndiRattiRku veLLaitaan ndanRaaka eTukkum.* 'Only white will go well with black'	*veLLaitaan* 'Only white'		*kaRuppu ndiRattiRku* 'with black'
39	Raise (an issue, etc.)	*avan peeccai evanum eTukkak kuuTaatu enRu miraTTinaan.* 'He threatened that nobody would raise the issue about him.'	*evanum* 'no one'	*avan peeccai* 'issue about him'	
40	Dig	*tennangkanRu ndaTa iraNTaRaiyaTi aazhattukku oru kuzhi eTukka veeNTum* 'One has to dig a pit of two and a half feet depth for planting a coconut sapling.'	–	*iraNTaRaiyaTi aazhattukku oru kuzhi* 'a pit of two and a half feet depth'	*tennangkanRu ndaTa* 'for planting coconut sapling'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Reason/manner /location**
41	Screen (film in a movie theatre)	*indtat tiraiyarangkattil eppootumee putuppaTangkaLait taan eTuppaarkaL.* 'They screen always new films in this theatre'	–	*putuppa TangkaLait taan* 'only new films'	*indtat tiraiyarangkattil* 'in this theatre'
42	Take	1.*kaaRRiluLLa kariyamala vaayuvai oLicceerkkaiyin pootu taavarangkaL eTuttukkoLkinRana.* 'The plants take the carbondioxide in the air during photosynthesis' 2. *veerkaL tangaLukkut teevaiyaana ndiirai maNNilirundtu eTuttukkoLkinRana* 'The roots take the water needed for them from the earth.'	1. *taavara-ngkaL* 'plants' 2. *veerkaL* 'roots'	1. *kaaRRiluLLa kariyamala vaayuvai* 'the carbon-dioxide in the air' 2. *tangaLukkut teevaiyaana ndiirai* 'the water required by them'	1.*oLicceer-kkaiyin pootu* 'during photosynthesis' 2. *maNNi-lirundtu* 'from the earth'

The senses of *eTu* have been grouped into seven sets by CMTD. They have been listed below again for the sake of discussion.

1. Usages related to changing one's position
2. Usage related to taking into possession
3. Usage related to collecting
4. Usage related to creating one
5. Usage related to removing
6. Usage related to undertaking
7. Other usages

The prototypical meaning of *eTu* is 'taking something by using hands'. It is a transitive verb with two arguments, subject and object. Subject is unmarked and mostly appears at the beginning of a sentence; object is marked for accusative case and appears mostly after the subject. One can assume two more arguments; they are the location from where the object is taken and the instrument used for taking the object. Apart from these arguments the manner of taking may also be responsible for differentiating the senses of *eTu*. Unlike the verbs of transfer or verbs of getting or giving there is no giver involved in this verb. By

means of taking the object, the subject acquires the possession of the object, either temporarily and permanently. As said earlier, taking does not involve a giver; one can assume a location from which the object is taken. In the above listed classification in CMTD, both real taking and abstract or metaphorical taking are mixed up. In the first group there are five senses. The first sense given in CMTD is the prototypical sense. The second sense is metaphorical and the semantic feature 'take to possession of an object' is not implied in this sense. Metaphorically too it is not related to the prototypical meaning. The English equivalent to this sense is 'assume' which is far away from the prototypical meaning. How far the meaning extension may go away from the prototypical sense is not predictable. It is difficult to find out the reason for the inclusion of such a sense which is far away from the prototypical meaning under the entry. If you ask the native speaker they mostly say that the sense is somehow related to the prototypical meaning. This sense requires two arguments for its correct interpretation: the subject who assumes an appearance and the appearance assumed by the subject. The third sense 'extract' which involves taking out something from an object. But the entity which is extracted from the object of extraction is inside the object as juice inside the sugarcane and butter inside the curd. This sense requires three arguments: subject, object and the source from which the object is extracted. The fourth sense is a complex one. One sub-sense is moving away the object; the second sub-sense is taking away an object from something and third one is a metaphorical sense of taking; in this third sub-sense, the object which is moved or taken away is the eye meant for perception and the location from where the object is taken away or moved is a body (or similar things).

Ten senses are in the second group. According to CMTD, they are usage related to taking into possession. The sixth sense is 'purchase something.' Here in this sense two arguments are involved: the purchaser who assumes role of the subject and the purchased things which assume the role of the object. In this sense the prototypical sense of 'taking' is extended to denote 'purchasing'. The seventh sense is 'take something for oneself; withdraw'. This sense is closer to the prototypical sense. The verb in this sense involves three arguments: the taker who assumes the role of the subject, the entity which is taken that assumes the role of the object and third one is the source from which the object is taken. The eighth sense is 'obtain something by digging out or immersing'. The verb in this sense involves three arguments: the obtainer who assumes the role of subject, the entity which assumes the role of object and the source from which the object is obtained. The verb in this sense too is closer to the prototypical sense of taking. The ninth sense is 'scoring marks, points, etc.' The verb in this sense has the extended sense of 'taking', that is 'scoring'. It involves at least two arguments: the subject who is the scorer and the score which function as the object. Optionally it takes an argument which could be a game, competition, the subject of study and the like. The tenth sense is 'getting profit for the investment'. The verb in this sense too requires two arguments for its interpretation: the subject who is the beneficiary of the profit and the profit which assumes the role of object. The eleventh sense is 'hiring house, vehicle etc. for use'; it does not denote the real action of 'taking something from somewhere'. This sense is slightly moved from the prototypical sense of 'taking'. This

sense requires two arguments: the subject who is the hirer and objet which is hired. The twelfth sense is 'avail leave'. The sense requires two arguments; one is the subject who avails the leave and another is the object which is the leave availed. The thirteenth sense is metaphorical. This sense takes as its object the entities such as channel and frequency respectively in television and radio; the entities such as television and radio which require capturing of channel or frequency for display function as the subject. The fourteenth sense is 'take treatment.' This sense requires two arguments for its interpretation: the subject who takes treatment and the object 'treatment.' The fifteenth sense is 'take without permission' or 'take the possession of something without permission.' This sense too involves two arguments the subject and the object. The manner in which the object being taken i.e., without permission or illegally, makes it different from other types of taking.

The third group consists of five senses and they are grouped together in CMTD as 'usages related or concerned with collecting'. The sixteenth sense is 'take or collect (measurement, data, etc.)' This sense involves two arguments: the subject who takes or collects the measurement or data or the like and the object which could be measurement or data or the like. The object takes the semantic feature + ABSTRACT (opposed to +CONCRETE). The feature + ABSTRACT assigned to the object differentiate this sense from those senses which require objects with the semantic feature +CONCRETE. The seventeenth sense is an extension of 'taking', i.e. 'collecting, picking, and gathering'. The verb in this sense requires two arguments the collector who is the subject and the entity collected which is the object of the verb. The eighteenth sense too does not denote the real sense of taking something. Here in this sense the action of 'taking something from somewhere' is metaphorical. The verb in this sense requires two arguments: the subject who searches and finds out a part or a page in the object such as book, etc. and the object which is part or page searched by the subject. The nineteenth sense is 'using a part in creations like book, etc.' The verb in this sense requires two arguments: the subject which makes use of the part in a book, etc. and the object which is the part used by the subject. The twentieth sense is 'selecting a subject of study or a sample for experiment'.

The fourth group consists of three senses and are grouped together in CMTD as usages concerned with creation. The three senses are the 21st sense of 'building (temple, etc.), 22nd sense of 'making a film, TV program, etc.' and 'taking a copy of application, etc. and 23rd sense of 'making a paring in one' hair'.

The fifth group consists of five senses which are grouped in CMTD as usages related to removing. The five senses are the 24th sense of 'taking away dead body', 25th sense of 'removing by means of cutting, etc.', the 26th sense of 'removing knot', the 27th sense of 'withdrawing or lifting prohibition, etc.' and the 28th sense of 'exorcising' i.e. 'removing or nullifying the effect of a black magic'.

The sixth group consists of four senses which are grouped in CMTD as 'usages related to undertaking'. This includes the 29th sense of 'taking into police custody', 30th sense of 'taking a decision', 31st sense of 'taking an action, effort, etc.' and the 32nd sense of 'taking an oath, pledge, etc.'

The seventh group consists of ten senses which are grouped in in CMTD as 'Other usages'. This includes the 33rd sense of 'taking medicine, etc.', 34th sense of 'starting a vehicle' and 'taking or using a vehicle' and the 35th sense of 'taking time', the 36th sense of 'giving the amount mentioned', the 37th sense of 'being effective' and 'appealing to somebody', the 38th sense of 'going well with something', the 39th sense of 'raising an issue, etc.', the 40th sense of 'digging pit, etc.', the 41st sense of 'screening movie in a movie theatre', and the 42nd sense of 'taking something by absorbing and separating'.

It can be inferred from the above discussion that the meaning denoted by *eTu* need to be separated into at least forty two senses from the point of view of the argument structures associated with each sense. Pustejovky's principles of generative lexicon can help us to synthesize these forty two senses from the argument structure associated with them.

4.3.17. eeRu

CMTD has only one entry for *eeRu* with 16 senses. They have been listed in the table given below with example. The examples are analyzed based on the argument structure of the verb *eeRu*.

Sr. No.	Senses	Example	Arguments		
			Subject	Location	Manner, purpose/ reason
A. The usages related to going up					
1	Climb, get on to	1. *veRRipeRRavarkaL meeTaiyil eeRip paricukaLaip peRRuc cenRaarkaL* 'The winners climbed the dais and received the pizes and went' 2. *vayataakiviTTataal avaraal maaTippaTi eeRa muTiyavillai* 'As he is old, he could not climb the steps to the stair.' 3. *kurangku marattil caracaravenRu eeRiyatu.* 'The monkies climbed the tree speedily.'	1. *veRRipe-RRavarkaL* 'winners' 2. *avar* 'he' 3. *kurangku* 'monkey'	1. *meeTaiyil* 'on the dais' 2. *maaTippaTi* 'steps to stair' 3. *marttil* 'on the tree'	1. – 2. – 3. *caracaravenRu* 'speedily'

Sr. No.	Senses	Example	Arguments		
			Subject	**Location**	**Manner, purpose/ reason**
2	Rise of a level	1.*aTai mazhai peytataal taan kuLattil ndiir eeRum.* 'If it rains heavily only the water level in the pond will increase.' 2. *avan muuccai izhuttuviTTapootu maarpu eeRi iRangkiyatu* 'When he pulled in and let out the breath, his chest went up and came down'	1.*ndiir* 'water' 2. *maarpu* 'chest'	1. *kuLattil* 'in the pond' 2.–	1. *aTai mazhai peytataal taan* 'if it rains heavily only' 2. *avan muuccai izhuttuviTTapootu* 'when he pulled in and let out the breath'
3	Rise (as price, value, etc.); go up	*kaTandta maatattil maTTum tangkattin vilai pala muRai eeRiyirukkiRatu.* 'The price of gold increased many times in the last month.'	1. *tang-kattin vilai* 'price of gold'	1. *kaTandta maatattil* 'in the last month'	*pala muRai* 'many times'
4	Ascend the throne	1. *manditri iLavarcanai ariyaNai eeRa viTaamal ceytaar.* 'The minister made the pince not to ascend the throne.' 2. *aaTciyil eeRiyatum pala ndalla tiTTangkaLaip piratamar makkaLukku aRivittaar* 'The Prime Minister announced many good plans for the people as soon as he ascended the reign.'	1. *iLavar-canai* 'prince' 2. *piratamar* 'pime minister'	1. –	1. *ariyaNai* 'throne' 2. *aaTciyil* 'in the reign'
B	**Usages related to coming into or coming to a place**				
5	Get on a vehicle, board	*ciikkiram vaNTiyil eeRu vaNTi puRappaTap pooki-Ratu.* 'Get into the vehicle; it is going to start.'	*ndii* 'you'	–	*vaNTiyil* 'in the vehicle'

Sr. No.	Senses	Example	Arguments		
			Subject	**Location**	**Manner, purpose/ reason**
6	Catch a bus, train, etc. a journey	*ndaan kaalai pattu maNikku rayil eeRa veeNTum.* 'I must board the train at ten O'clock in the morning.'	*ndaan* 'I'	*rayil* 'in train'	*ndaan kaalai pattu maNikku* 'at ten O'clock in the morning'
7	Visit, enter, go to a place (for a purpose)	*manaivikkup piTitta maatiri puTavai eTuppataRkaakak kaTaikaTaiyaay eeRi iRangindaar* 'He went from shop to shope to buy a saree for his wife.'	*avar* 'he'	*kaTaika-Taiyaay* 'shop to shop'	*manaivikkup piTitta maatiri puTavai eTuppataRkaaka* 'in order to buy a saree for his wife
C. Usages related to go over something					
8	Run over somebody or something	*teruvil paTuttuk kiTandta ndaay miitu laari eeRiviTTatu.* 'A lorry ran over the dog lying on the street.'	*laari* 'lorry'	*teruvil pa-Tuttuk kiTan-dta ndaay miitu* 'over the dog lying on the street'	–
D. The usage related to view going inside or spreading or depositing as going up					
9	Go inside (as nail, thorn, etc.) or (as poison) inside (body)	1. *en kaalil eeRiya muLLaip piTungka muTiyavillai.* 'I could not pull out the thorn which went inside my leg.' 2. *paampin visham eeRi maaTTin vaayil ndurai taLLiyatu* 'The foam formed in the mouth of the cattle as the poison went inside its body.'	1. *muL* 'thorn' 2. *paampin visham*	1. en *kaalil* 'in my leg' 2. *maaTu* 'cattle'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Location**	**Manner, purpose/ reason**
10	Develop greying, balding	1. *avanukku muTi koTTi vazhukkai eeRiyirundatu* . 'The baldness developed as he lost the hair.'	*vazhukkai* 'baldness'	–	*muTi koTTi* 'as the hair fell'
11	Rise	1. *caaraayam kuTittavuTan avan uTampil ushNam eeRat totangkiyatu*. 'The temperature in his body started increasing as soon as he consumed the alcohol' 2. *veyil eeRa eeRa ore puzhukkam*. 'There is sultriness as the sun light increases.'	1. *ushNam* 'temperature' 2. *veyil* 'sunlight'	1. *avan uTampil* 'in his body' 2. –	
12	Get absorbed or deposited as dye, colour, etc.; get into	1. *tuvaittut tuvaittu veeshTi pazhuppu eeRiyatu.* 'Having washed several times the brown colour got deposited on the dothi.' 2. *veRRilai pooTTu paRkaL kaavi eeRina* 'The brown colour deposited on the teech by chewing pan'	1. *pazhuppu* 'brown colour' 2.*kaavi* 'brown colour'	1.*veeshTi* 'dothi' 2. *paRkaL* 'teeth'	1. *tuvaittu tuvaittu* 'having washed again and again' 2. *veRRilai pooTTu* 'having chewed the betel leaves'
13	Rise (anger, frenzy, etc.); shoot up	1. *makan peecap peeca avar mukattil koopam eeRiyatu*. 'The anger in his face increased as his son went on talking'	1. *koopam* 'anger' 2. *pootai* 'intoxication'	1. *avar mukattil* 'his face' 2. –	1. *makan peecap peeca* 'as his son went on talking' 2. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Location**	**Manner, purpose/ reason**
		2. *pootai eeRiyatum avan uLaRa aarampittaan.* 'He started talking incoherently as the intoxication increased'			
E. Idiomatic usages					
14	Increase money, haughtiness, etc. so as to make one conceited	1. *kaiyil kaacu eeRiyirukkiRatu.* 'The money in his hand got increased' 2. *unakkuk kozhuppu eeRiviTTatu.* 'The fat on his body got increased	1. *kaacu* 'money' 2. *kozhuppu*	1. *kaiyil* 'in the hand' 2. –	1. – 2. *unakku* 'to you'
15	Put on weight	1. *unakku uTampu eeRavee eRaataa*? 'Will you not put on weight?' 2. *poona taTavaip paarttatai viTa avanukku ippootu uTampu ndanRaaka eeRi irukkiRatu.* 'His weight has increased more than when I saw him last time.'	1.*uTampu* 'weight of the body' 2. *uTampu* 'weight of the body'		
16	Get registered (as something communicated)	1. *ndiingkaL enna connaalum avan muuLaiyil eeRaatu.* 'What ever you say will not go inside his brain' 2. *ndaam colvatu avan kaatil eRaatu.* 'Whatever we say will not be listened by him'	1. *ndiingkaL enna connaalum* 'what ever you say' 2. *ndaam colvatu* 'what ever we say'	1. *avan muuLaiyil* 'his brain' 2. *kaatil* 'in the ear'	

This verb prototypically means 'climb'. It is a verb denoting upward movement in which the subject moves up. The sixteen senses listed in CMTD are grouped into five sets which are listed below:

1. The usages related to going up
2. Usages related to coming into or coming to a place
3. Usages related to go over something
4. The usage related to view going inside or spreading or depositing as going up
5. Idiomatic usages

The first group of "usages related to going up" consists of four senses. It covers the prototypical meaning of climbing up. It may involve a place where the upward movement takes place. The climbing of steps may require legs as instrument. But climbing up on a tree may require both legs and hands. The second sense is 'rise as the level of a liquid like water (which is the subject of the verb) in a water body such as a pond' and 'rise as the level of chest (which is the subject of the verb).' The third and the fourth senses are metaphorical in which there is no physical sense of moving up of the subject. The third sense denotes increasing of value, prise, etc. (which are the subject of the verb). The fourth sense requires two arguments for its interpretation, the ascender (who is the subject of the verb) and the target where the subject ascends (throne, government, etc.). There is no physical upward movement; it is only a metaphorical sense of ascending; the target is only a position and not a place.

The second set of senses (5 to 7) denotes "usages related to coming into or coming to a place". The second set of senses involves real movements. The upward movement is subdued and focus is on entering a place rather than moving up. The fifth sense denotes entering a vehicle for the sake of travelling; the sixth sense is catching a vehicle for the sake of travelling; the seventh sense denotes moving or entering from one place to another place.

The third set of senses denotes "usages related to go over something." It involves only one sense (8); the physical sense of moving up is involved in this sense to some extent.

The fourth set of senses (9 to 13) denotes the "usages related to going inside or spreading inside or depositing on something." This set appears to be an assorted group involving 'going inside as nail, thorn, etc.' inside the leg or poison inside the body', 'developing baldness, gray hair, etc.', 'increasing as coldness and hotness', 'depositing and staining' and 'increasing as 'anger, frenzy'. Actually the ninth sense is a complex one consisting of 'going inside as a thorn, nail, etc.' and 'going inside as 'poison inside a body'. These senses need to be separated based on the semantic features of the subject and the nature of the action involved. Also the ninth sense involves the movement of the subject inside an entity. The tenth to thirteenth senses do not involve movement. The upward movement is assumed metaphorically. The fourth set of senses (14^{th} to 15^{th}) is declared idiomatic in CMTD.

If one can capture the argument structure of the verbs properly, we will be able to generate the sixteen senses enumerated in CMTD. Pustejovky's principles of generative lexicon can help us to synthesize these sixteen senses from the argument structure associated with the verbs.

4.3.18.eeRRu

CMTD has two entries on *eeRRu* and both are verb entries (*eeRR*[1] and *eRRu*[2]).

eRRu[1]

In CMTD, 12 senses have listed for *eeRRu*[1]. They have been listed in the table with examples. The examples are analyzed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Place/instrument/ manner/beneficary
A	**Usages related to making something to be inside something or on some place**				
1	Take on board; help somebody board (a vehicle)	1.*peerundtil atikap payaNikaLai eRRuvatu tavaRu.* 'It is wrong to take on board more passengers inside the bus' 2. *ammaavai vaNTiyil eRRiviTTu viiTTukku vandteen.* 'I came home after boarding mother in the vehicle'	1. – 2. *ndaan*	1. *atikap payaNikaLai* 'more passengers' 2. *amaavai* 'mother'	1. *peerundtil* 'in the bus' 2. *vaNTiyil* 'in vehicle'
2	Lift something into or onto something); place something upon or over something.	1. *ndiingkaL ellaa caamaankaLaiyum vaNTiyil eeRRi viTTiirkaLaa*? 'Have you loaded all the things inside the vehicle?' 2.*paal paattirattai ippootutaan aTuppil eeRRineen* 'I have placed the milk vessel on the oven just now.' 3.*avanai kutirai meel eeRRi uTkaaravaitteen* 'I have lifted him and made him sit on the horse' 4. *kalai ulakil ennai eeRRivaitta perumai en annaiyaic caarum.* 'The credit of lifting me in the world of art belongs to my mother'	1.*ndiingkaL* 'you 2. *ndaan* 'I' 3. *ndaan* 'I' 4.annai 'mother'	1. *ellaa caamaanka-Laiyum* 'all things' 2. *paal paattirattai* 'milk vessel' 3. *avanai* 'him' 4. ennai 'I'	1. *vaNTiyil* 'in vehicle' 2. *aTuppil* 'in oven' 3. *kutirai meel* 'on horse' 4. *kalai ulakil* 'in the world of art'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/instrument/ manner/beneficary**
B. Usages related to go over something					
3	Run over (something)	*teruvil viLaiyaaTum kuLandtaikaL meel eeRRiviTaamal paarttu laariyai ooTTu.* 'Drive the lorry carefully without runing over the children playing on the street.'	*ndii* 'you'	–	*teruvil viLaiyaaTum kuLandtaikaL meel* 'on the childen playing on the street'
C. Usages related to making something to go upward					
4	Hoist (a flag)	1. *avar teeciyakkoTi eeRRiyatum teeciya kiitam olittatu.* 'The national anthem was played as soon as he hoisted the national flag.' 2. *talaivar kaalaiyil eeRRiya koTiyai maalaiyil taan iRakkuvaarkaL.* 'In the eveing only, they will lower the flag which was hoisted by the leader in the morning'	1.*avar* 'he' 2. *talaivar* 'leader'	1.*teeciyakkoTi* 'national flag' 2. *koTi* 'flag'	2. *kaalaiyil* 'in the morning'
5	Pump up (water)	*ndiir eeRRum ndilaiyam* 'The station which pumps up water'	*ndilaiyam* 'station'	*ndiir* 'water'	
6	Raise (something) move up (a sliding thing)	1. *muukkil iRangkiyirundta kaNNaaTiyai viralaal eeRRiviTTukkoNTu peeca aarampittaar.* 'He started talking after raising the spectacle lowered to the nose'	1. *avar* 'he'	1. *muukkil iRangkiyi-rundta kaNNaaTiyai* 'the spectacle lowered to the nose'	1. *viralaal* 'finger'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/instrument/ manner/beneficary**
		2. *paTattai innum ciRitu eeRRi maaTTu* 'Raise the picture a bit more and hang it'			
7	Increase (price, fare, etc.)	*iiTTukkaarar aaRu maatattiRku oru muRai vaaTakaiyai eeRRiviTukiRaar.* 'The owner of the house increases the rent every six month'	*viiTTu-kkaarar* 'house owner'	*vaaTakaiyai* 'rent'	*aaRu maatattiRku oru muRai* 'every six months'
8	Raise voice	*kuralaip paTippaTiyaaka eppaTi eeRRi iRakkalaam enRu ndaTikarkaLukkup payiRci aLikkappaTukiRatu* 'The actors are given training how to raise and lower their voice step by step'	*ndaTikarkaL* 'actors'	*kuralai* 'voice'	*paTippaTiyaaka* 'step by step'
9	Praise; glorify	*iRaivanin tiruviLaiyaaTalkaL eeRRip pooRRappaTukinRana* 'The sportive acts of Lord Siva is praised and glorified'	–	*iRaivanin tiruviLaiyaa-TalkaL* 'the sportive act of Lord Siva'	–
10	Cause to go in; inject; transfuse	*vipattil kaal izhandtavarukku uTanaTiyaaka irattam eeRRa veeNTum.* 'Blood should be transfused to the person who lost his leg in an accident.'	–	*irattam* 'blood'	*vipattil kaal izhandtavarukku* 'to the person who lost his leg'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/instrument/ manner/beneficary**
D. Usages related to viewing going inside as going up					
11	Impart; charge	1. *uNarccikaramaana peeccaal makkaLukku veRi eeRRiviTukiRaar.* 'He intensifies the fury of the people by his emotional speech.' 2. *kavinjarkaL coRkaLukku oLiyaiyum azhakaiyum allavaa eeRRiviTukiRaarkaL* 'The poets impart brightness and beauty to the words' 3. *kaTTiyangkaaran ndikazhkaalattin caayalait terukkuuttil eeRRiviTukiRaan.* 'The introducer of the play imparted the shadow of the present day situation in the street play.'	1.*avar* 2.*kavinjarkaL* 'poets' 3. *kaTTi-yang-kaaran* 'the introducer of the play'	1. *veRi* 'fury' 2. *oLiyaiyum azhakaiyum* 'brightness and beauty' 3. *ndikazh-kaalattin caayalai* 'the shadow of the present day'	1.*uNarccikaramaana* peeccaal 'by the emotional talk' *makkaLukku* 'to the people' 2. *coRkaLukku* 'to the words' 3. *terukkuuttil* 'street play'
12	Make hot, heat	*paattirattai leecaakac cuuTeeRRu* 'Heat the vessel a little'	*ndii* 'you'	*paattirattai* 'vessel'	*leecaakac* 'slightly'
E. Usage related to shifting to something					
13	Shift blame, responsibility, etc.	*piRar meel pazhiyai eeRRiviTuvatu culapam'* 'It is easy to shift the blame on somebody'	–	*pazhiyai* 'blame'	*piRar meel* 'on others'
14	Put (on record)	*andta uRuppinar kuuRiya cila corkaL avaik kuRippil eeRRappaTaatu.* 'The words said by the member will not be put on record in the minutes of parliament'	–	*andata uRuppindar kuuRiya cila corkaL* 'the words told by that member'	*avaik kuRippil* 'in the minutes of parliament'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Place/instrument/ manner/beneficary**
15	Place (a person or a group in power or position)	1.*talaivar tan ndampikkaikkup paattiramaana oruvarai aaTciyil eeRRinaar* 'The leader placed a person who is loyal to him in government' 2.*mannar tan makanai ariyaNaiyil eeRRiviTTu tuRavaram puuNTaar.'* 'The king took to ascetic life after placing his son on the throne'	1. *talaivar* 'the leader' 2. *mannar* 'king'	1.*ndampikkai-kkup paattira-maana oruvarai* 'a person who is loyal to him' 2. *tan makanai* 'his son'	1. *aaTciyil* 'in government' 2. *ariyaNaiyil* 'on the throne'

As we see from the table, CMTD has classified the fifteen senses into five sets/groups. They are listed below:

1. Usages related to making something to be inside something or on some place
2. Usages related to go over something
3. Usages related to making something to go upward
4. Usages related to viewing going inside as going up
5. Usage related to shifting to something

The *eeRRu*[1] is the transitive form of the verb *eeRu*. One can find parallels between them if the table of *eeRu* is compared with *eeRRu*[1]. The "Usages related to making something to be inside something or on some place" is the primary group meaning of this verb.' Making or causing someone or something to go up' is the prototypical sense of the verb from which other senses can be derived or interpreted.

Under first set of senses concerned with the usage related to making something to be inside something or on some place, two senses are included: "take on board; help somebody board (a vehicle)" and "lift something into or onto something; place something upon or over something". In the second set of senses concerned with the usage related to go over something, only one sense is included: "run over (something)". In the third set concerned with usage related to making something to go upward, six senses are included: 'hoist (a flag)', 'pump up (water)', 'raise (something); move up (a sliding thing)', 'increase (price, fare, etc.)', 'raise voice' and 'praise; glorify'. In the fourth set concerned with usages related to considering going inside as going up, three senses are included: cause to go in; inject; transfuse', 'impart; charge' and 'make hot; heat'. In the fifth set concerned with the usage related to shifting to something', there are three senses: 'shift blame, responsibility, etc.', 'put (on record)' and place (a person or a group in power or position). The English translation given to the fifteen

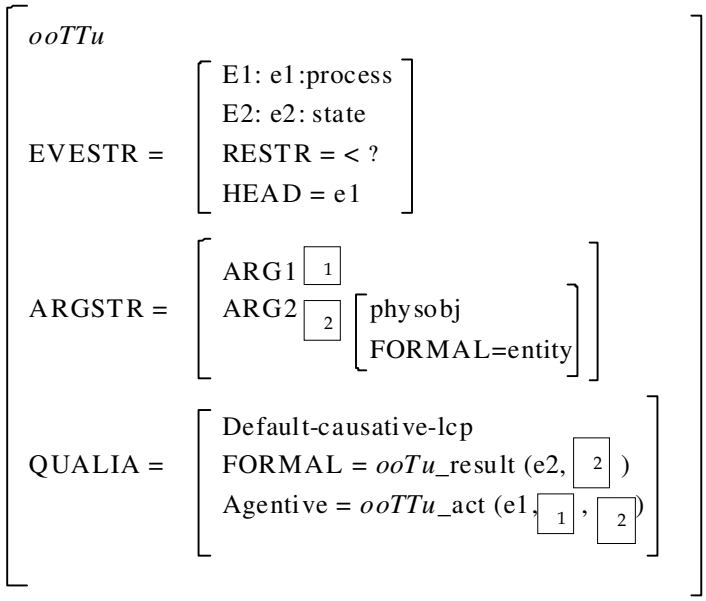
senses tells clearly that the verb *eeRRu* extends its meaning covering a wider range of senses which include causing to board a vehicle, lifting, running over something, hoisting a flag, pumping up water, raising something in the lower level, increasing price, value, etc., raising voice, praising or glorifying, causing to go in or inject something inside body, imparting heat, shifting blame, responsibility, etc. on somebody, putting (on record) and placing (a person or a group in power or position).

From the argument structure assigned to each sense of the verb, it can be inferred that the different senses attributed to *eeRRu* can be deciphered from the semantic features of the arguments. This can be depicted as follows:

eeRRu	[NP	+NP-ACC	+NP-LOC]
	+SUB	+OBJ	+LOC
	+SF	+SF	+SF

(SF =semantic features)

Pustejovsky's generative lexicon theory takes care of this productive or generative nature of the verb to interpret different senses from infinitive number of contexts and to identify the list of senses enumerated in CMTD. Pustejovsky tries to capture the polysemous nature of verbs by proposing a generative lexicon theory. It captures the polysemous nature of verbs by the four levels of structure such as argument structure, event structure, qualia structure (with formal role, constituent role, telic role and agentive role) and lexical inheritance structure. The polysemous nature of the verb can be captured by the following representation:



eeRRu²

CMTD has listed two senses for the verb *eeRRu²*. The have been tabulated below with examples and argument structures.

Sr. No.	Senses	Example	Arguments	
			Subject	Object
1	Light (an oil lamp, camphor, etc.)	*maNi aaRu aakappookiRatu. viLakkai eeRRu.* 'It is going to be six O' clock. Light the lamp'	*ndii* 'you'	*viLakkai* 'lamp'
2	Switch on (electric bulb)	*minviLakkai eeRRiyavuTan aRaiyil oLi paayndtatu.* 'As soon as the electric bulb was switched on, the light came inside the room'	–	*minviLakkai* 'electric bulb'

The verb *eeRRu²* takes the subject as the agent and the NP marked for accusative case as the object. The senses denoted by this verb in contrastive relation with the senses belonging to *eeRRu¹*. The prototypical meaning of lighting an oil lamp, camphor, etc. is extended to putting on the electric bulb. It appears that etymologically *eeRRu¹* and *eeRRu²* are from the same source.

4.3.19. ooTu

There are three entries of *ooTu* in CMTD. The first one is noun. The second one is a noun and the third one is a case marker in the sense of 'with'. Here we are concerned with the verb *ooTu*. CMTD has listed twenty senses for the verb. They have been tabulated below with examples and explications of the argument structure the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner/goal
A. Usage related to diplacement					
1	The living beings like human beings, animals, etc. move faster than walking by placing	1. *avan rayilaip piTikka veekamaaka ooTinaan.* 'He ran fast to catch the train.' 2. *kuzhandtai kuTukuTu enRu ooTiyatu.* 'The child ran fast'	1. *avan* 'he' 2. *kuzhan-dtai* 'child' 3. *yaanai-kaL*	1. *rayilaip piTikka* 'to catch the train' 3. *veTiccattattaik keeTTa* 'after hearing the gun shot';	1. *veekamaaka* 'fast' 2. *kuTukuTu enRu* 'fast' 3. *miraNTu* 'have scared'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/goal**
	legs forward; the living beings like fish move by swim fast in water; the living beings like snake crawling fast.	3. *veTiccattattaik keeTTa yaanaikaL miraNTu ooTatoTangkina.* 'The elephants start running having scared after hearing the gun shot.'			
2	The vehicles like bus which moves by mechanical force move from one place another place	1.*curangka irayil inRu mutal ooTum.* 'The subway trains will run from today' 2.*pooraaTTatin kaaraNamaakap peerundukaL ooTavillai* 'The buses stopped running due to strike'	1.*curangka irayil* 'subway train' 2. *peerundu-kaL* 'buses'	1. – 2.*pooraa-TTatin kaara-Namaaka* 'due to strike'	1.*inRu mutal* 'from today' 2. –
3	Roll as round objects	*maTTaiyaaLar aTitta pandtu ellaikkooTTai ndookki ooTiyatu.* 'The ball struck by the batsman rolled towards the boundary.'	*maTTai-yaaLar aTitta pandtu* 'ball struck by batsman'	–	*ellaikkooTTai ndookki* 'towards the boundary'
4	Flow as water, blood etc.; pass through as electicity in wire.	1.*indta aaRu kaaTTin vazhiyaaka ooTik kaTalil kalakkin-Ratu.* 'This river runs through the forest and joins the sea' 2. *andtak kampiyil mincaaram ooTukiRatu.* 'The current runs through the wire.'	1.*indta aaRu* 'this river' 2. *mincaa-ram* 'electicity'		1. *kaaTTin vazhiyaaka* 'through the forest' 2. *andtak kampiyil*

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/goal**
5	Flee; escape	*elloorum ooTivandatum tiruTan payandtu ooTiviTTaan* 'The theif fleed due to fear when all the people came running.'	1.*tiruTan* 'thief'	1.*elloorum ooTivandatum* 'when all the people came running'	1. *payandtu* 'having afraid'
6	Run away from one's house or country; flee	1.*yuttattin pootu tangkaL ndaaTTilirundtu ooTivandta akatikaL.* 'the refugees who came running from their country during the war.' 2. *appaavuTan caNTaipooTTu viiTTaiviTTu ooTiviTTaan* 'He has left the house after quarellling with his father.'	1. *akatikaL* 'refugees' 2. *avan* 'he'	1. *yuttattin pootu* 'at the time of war' 2. *appaavuTan caNTaipooTTu* 'having quarrelled with father'	1.*tangkaL ndaaTTil-irundtu* 'from their country' 2. *viiTTai viTTu* 'from the house'
7.	Run after	1.*anRu pirapalamaaka irundta ndaTikariTam elloorum ooTinaarkaL.* 'All ran after the actor who was popular at that time.' 2. *uTampil oru cinna kaayam enRaal kuuTa avan maruttuvariTam ooTuvaan* 'He will run after the doctor even if it is a small wound.'	1.*elloorum* 'all' 2. *avan* 'he'	1 – 2. *uTampil oru cinna kaayam enRaal kuuTa* 'even if it is a small wound'	1.*anRu pirapalamaaka irundta ndaTikariTam* 'to the actor who was popular at that time' 2. *maruttuvari-Tam* 'to a doctor'
8	Run (in cricket match, race, etc.)	1. *indiya viirar muunRaavatu ooTTam eTuppataRkaaka ooTiya pootu aaTTamizhandtaar* 'The Indian batsman lost the game when he ran to take the third run'	1.*indiya viirar* 'Indian batsman' 2. *ettatanai kutiraikaL* 'how many hourses'	1. – 2. –	1. – 2. *indta pandtayattil* 'in this race'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/goal**
		2. *indta pandtayattil ettatanai kutiraikaL ooTukinRana.* 'How many hourses are running in this race?'			
9	Roll (as film, yarn)	*ooTikkoNTirunda paTaccuruL aRundtu viTTataal paTam paatiyileeyee ndiRuttappaTTatu.* 'The cinema was stoped as the fim roll which was running broke'	*paTaccuruL* 'fim roll'	–	–
BUsages related to move by being at a position					
10	Go as watches, clocks; run as machines	1.*indta taNNiir iRaikkum iyandtiram cariyaaka ooTuvatillai.* 'This engine which pumps water is not working properly' 2. *eetoo vaazhkkai ooTikkoNTirukkiRatu* 'The life is going on some how'	1.*indta taNNiir iRaikkum iyandtiram* 'this water pumping machine' 2. *vaaz-hkkai* 'life'	1. – 2. –	1.*cariyaaka* 'properly' 2. *eetoo* 'somehow'
11	Move in and out of lungs as breath	*marundtu koTutta piRaku avarukku muuccu ciirAka ooTa aarampittatu.* 'His breathing started going on smoothly after being given medicine.'	*muuccu* 'breathe'	*marundtu koTutta piRaku* 'after being given medicine'	*avarukku* 'to him'*; ciirAka* 'smoothly'
12	Function as heart; beat pulse	*ooTikkoNTirunda itayam oru kaNam ndinRuviTTatu pool irukkiRatu.* 'It seems that the heart which was running stoped for sometime.'	*itayam* 'the heart'	–	–

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/goal**
C. Usages pertaining to telling non-moving as moving					
13	Run across as lines in plams	*un kaiyil atirshTa reekai ooTukiRatu.* 'Lucky lines are running across your palm.'	*atirshTa reekai* 'lucky lines'	–	*un kaiyil* 'in your hand'
14	Spread as veins, vessels Run across; run through	1. *avaL kazhuttil paccai ndarampu ooTukinRatu.* 'A vein runs in her neck' 2. *ndilattil veer ooTiyirukkiRatu.* 'The root runs through the earth' 3. *viti reekai canimeeTTil ooTinaal ndallatu.* 'It is good if the line of life runs towards Saturn mount.'	1.*paccai ndarampu* 'vein' 2. *veer* 'root' 3. *viti reekai* 'line of destiny'	1. – 2. – 3. –	1. *avaL kazhuttil* 'on her neck' 2. *ndilattil* 'in the earth' 3. *canimeeTTil* 'Saturn mount'
15	Run one's eyes over something	*ndaan koTutta kaTitattin meel paarvaiyai ooTa viTTaar.* 'He ran his eyes on the letter given by me.'	1. *avar*	*paarvaiyai* 'look'	*ndaan koTutta kaTitattin meel* 'on the letter given by me'
16	Flash as smile in face and thoughts in mind	1.*oru kaNam avaruTaiya paarvaiyil veRuppu ooTi maRaindtatu.* 'Hatredness flahed in his look for a short time and disappeared.' 2. *un manattil enna ooTukkiRatu enRu enakkut teriyum.* 'I know what is going on in your mind'	1. *veRuppu* 'hatre dness' 2. *enna* 'what'	1. – 2. –	1.*avaruTaiya paarvaiyil* 'in his look'; *oru kaNam* 'short time' 2. *un manattil* 'in your mind'
17	Show up in streaks as grey hair	*talaiyil angkangkee ndarai ooTiyirundtatu* 'Greay hair showed up (in her head)'	*ndarai* 'grey hair'	–	*talaiyil angkangkee*

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/goal**
18	Run as films in theatres; progress as works	1.*indta paTam nduuRu ndaaL ooTum.* 'This cinema will run for hundred days' 2. *avar tiraiyarangkil nduzhaivataRkuL paTam arai maNi ndeeram ooTiyirundtatu* 'The film has already run for half an hour before he entred the theatre.'	1. *indta paTam* 'this cinema' 2. *paTam*	1. – 2. *avar tiraiyarangkil nduzhaivata-RkuL* 'before he enters the theatre'	1. *nduuRu ndaaL* 'hundred days' 2. *araimaNi ndeeram* 'half an hour'
19	Get sold as goods, fare (as shops and business); do; go	1.*putitaay vandtirukkum indta marundtu engkaL kaTaiyil cumaara-kattaan ooTukiRatu.* 'The medicine which has arrived newly is getting sold only averagely in our shop' 2.*viyaapaaram oru maatiriyaaka ooTikkoNTirukkiRatu.* 'The business is going on some how.'	1.*putitaay vandtiru-kkum indta marundtu* 'the medicine arrived newly' 2 *viyaap-aaram* 'the business'	1. – 2. –	1.*engkaL kaTaiyil* *'in our shop'* *cumaara-kattaan* 'only average' 2. *oru maatiriyaaka* 'some how'
20	Pass quickly as time	1.*veelaiyil ceerndtu our varuTam ooTiviTTatu.* 'One year had passed after joining the job' 2.*ndaaTkaL evvaLavu veekamaaka ooTivi-TTana.* 'How quickly the days had passed away.'	1. *our varuTam* 'one year' 2. *ndaaTkaL* 'days' *onRum* 'nothing'	1. – 2. –	1.*veelaiyil ceerndtu* 'after joining the job' 2.*evvaLavu veekamaaka* 'how quikly'
21	Function	*kaaval tuRai atikaari-kaL tiTiirenRu vand-tavuTan enkku onRum ooTavillai.* 'I could not function as the police officials came suddenly'			

CMTD grouped the 21 sense into the following three groups/sets:

1. Usages related to displacement
2. Usages related to move by being at a position
3. Usages pertaining to telling non-moving as moving

The senses one to nine are grouped under the first set of 'usages related to displacement.' They include the primary sense "move faster than walking by placing legs forward as the living beings such as human beings, animals, etc.; move fast by swimming in water as the living beings such as fish; crawl fast as the living beings like snake." This appears to be a complex sense involving three sub-senses: (1) run as human being with legs, (2) move like fish by swimming fast in water and (3) crawl fast as the living beings like snake. We can consider the first sub-sense as the prototypical meaning form which the other two senses are extended. The first set includes the 'moving of vehicles like bus from one place to another by mechanical force', 'rolling like round objects,' 'flowing like water, blood, etc. and passing like electricity through wire', ' fleeing; escaping', 'running away from one's house or country; fleeing', 'running after something', 'running in cricket match, race, etc.' and 'rolling as film; yarn'. All these movements have to be considered as extensions from the prototypical meaning.

The senses 10 of 12 are grouped under the second set of "usages related to move by being at a position.' They include 'working as watches, clocks; running as machines', 'moving in and out of lungs as breath' and 'functioning as heart; beating as pulse'. The second set of usages appears to be the extension of the first set of usages.

The senses 13 to 21 are grouped under the third set of 'usages pertaining to telling non-moving as moving.' They include 'running across as lines in palms', 'running as veins, vessels; running across; running through as roots', 'running one's eyes over something', 'flashing a smile in face and thoughts in mind', 'showing up in streaks as grey hair', 'running as films in theatres; progressing as works', 'getting sold as goods, performing as shops and business', 'passing quickly as time' and 'functioning'. The senses 13 to 21 can be considered as metaphorical extensions of 'running'.

As we can see from the table, both obligatory arguments and optional arguments play a part in the interpretation or generation of senses. The semantic features concerned to the subject NPs and the semantic features pertaining to the phrases which function as location, reason, manner, etc. Give different senses to the verb. The polysemy associated with this verb can be captured by the semantic structure of verbs proposed by Pustejovsky (1995). His event structure, argument structure, qualia structure (with constitutive role, formal role, telic role and agentive role) and lexical inheritance structure coupled with the type coercion, selective binding and co-composition can capture polysemic nature of *ooTu*.

4.3.20.ooTTu

CMTD gives two entries for *ooTTu*. Among them one is verb and another is a noun. The verb *ooTTu* is the transitive form of the intransitive verb *ooTu*. CMTD gives 11 senses for this verb. They are tabulated below with examples. The examples are analyzed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ Location/reson**
A. Usages related to chasing					
1	Chase away or drive away (domesticated animals, birds, insects, etc.)	1. *tooTTattil pukunduviTTa aaTTai ooTTu.* 'Chase away the goat that entered the garden.' 2. *mutukil uTkaarnda iiyai maaTu vaalaal ooTiyatu.* 'The cow chased away the fly that was on its back by its tail'	1 *ndii* 'you' 2 *maaTu* 'the cow'	1 *tooTTattil pukunduviTTa aaTTai* 'the goat which has entered the garden' 2. *mutukil uTkaarnda iiyai* 'the fly which sat on the back'	1. – 2. *vaalaal ' by tail'*
2	Take along (animals such as sheep, cow, etc. to a place); drive along	*candtaikku maaTukaLai ooTTic cellum cattam keeTTatu.* 'The sound of driving the cattles to the market was heard.'	–	*maaTukaLai* 'cattles'	
B. Usages related to move					
3	Cause to walk or go (over something)	*kaLattil parappiya katirkaLin miitu maaTTai ooTTi maNikaLaip pirittaarkaL.* 'They separated the corns from the corn stalks spread on the ground by running the cattles on them'	–	*maaTTai* 'cattle'	*kaLattil parappiya katirkaLin miitu* 'the paddy
4	Drive (a vehicle, row (a boat), work (a machine), etc.	1. *ndaan kaar ooTTak kaRRukoLLappookiReen.* 'I am going to learn car driving' 2. *eer ooTTa maaTu illai.* 'There is no cattle to pull the plough'	1.*ndaan* 'one' 2. – 3. *ndaan* 'I' 3. *enakku* 'to me'	1.*kaar* 'car' 2. *eer* 'plough' 3. *paTaku* 'boat' 'car'	1. – 2. *maaTu* 'cattle' 3. – 4. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ Location/reson**
		3. *enakkup paTaku ooTTat teriyaatu.* 'I don't know how to row a boat' 4. *avaL taiyal iyandtirattai ooTTikkoNTirundtaaL.* 'She was driving the stiching maching'	4. *avaL*	4. *taiyal iyandtiram* 'stiching machine'	
5	Ride (an animal)	1. *kaTivaaLam illaamleeyee kutiriyai ooTTikkaaTTinaar.* 'He showed how to ride a horse without rein' 2. *puliyai aTakki atan miitu eeRi amarndtu ooTTivarum aiyappan paTam.* 'The picture of Ayappan coming by riding the tiger after taming it and sitting on it'	1. *kutirai* 'hourse' 2. *aiyappan* 'Lord Ayappan'	1. – 2. *puliyai* 'tiger'	1. *kaTivaaLm* 'rein' 2. – 3. –
C. Usages related to making to go up and down and longitudinally					
6	Move (fingers) quickly (as when shaping something)	*avar kaLimaNNai uruTTi atan miitu viralkaLai ooTTi uruvam koTuttaar.* 'He rolled the clay and gave a shape to it by moving his fingers.'	*avar* 'he'	*viralkaLai* 'fingers'	*kaLimaNNai uruTTi atan miitu* 'rolling the clay and on the clay'
7	Direct one's eyes over something	*avar kaNaaTi jannalkaLin pin vaikkappaTTirunda poruLkaLin miitu paarvaiyai ooTTinaar.* 'He ran his eyes on the objects kept behind the glass window.'	*avar* 'he'	*paarvaiyai* 'vision'	*kaNaaTi jannalkaLin pin vaikkappaTTirunda poruLkaLin miitu* 'on the objects kept behind the glass windows'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Instrument/ Location/reson**
8	Run (the lesson)	*aaciriyarukku ndeeram illlaatataal paaTattai ooTTiviTTaar.* 'The teacher ran the lesson as there was no time'	*aaciriyar* 'teacher'	*paaTattai* 'lessorn'	–
C. Usages related to removing					
9	Exorcize	*puujaariyai azhaittup peey ooTTinaarkaL.* 'They invited the priest and exorcized the devil'	*avarkaL* 'they'	*peey* 'evil'	*puujaariyai azhaittu* 'calling the priest'
D. Idiomatic usages					
10	Idel away (time); pass (the time)	*irayil vaNTi iraNTu maNi ndeeram taamatamaaka varuvakiRataam*; *pozhutai eppaTi ooTTuvatu?.* 'The train is two hours late. How to while away the time?	–	*pozhutai* 'time'	*eppaTi* 'how'
11	Manage (one's affairs with inadequate means)	*araikuRai aangkilattai vaittukkoNTu eppaTiyoo itundaaL varai ooTTiviTTeen.* 'I have managed somehow with my half baked English knowledge.'	*ndaan* 'I'	*eppaTiyoo itundaaL varai* 'somehow till now';	*araikuRai aangkilattai vaittukkoNTu* 'with my half baked English knowledge'

The verb *ooTTu* is the transitive form of the verb *ooTu*. CMTD classified the 11 senses into four sets. They are listed below:

1. Usages related to chasing
2. Usages related to cause to move
3. Usages related to making to go up and down and longitudinally
4. Usages related to removing
5. Idiomatic usages

The first set of two senses is 'usages related to chasing.' The two senses that are incorporated in the usages are 'chasing away or drive away domesticated animals, birds,

insects, etc.' and 'taking along animals such as sheep, cow, etc. to a place; driving along'. The first sense of chasing away or drive away domesticated animals, birds, insects, etc.' appears to be the prototypical sense from which the second sense is extended. The second set of three senses is 'usages related to cause to move'. These usages include three senses consisting of the third sense of 'causing to walk or go over something', the fourth sense of 'driving a vehicle, rowing a boat, working on a machine' and the firth sense of 'riding an animal'. The fourth sense appears to be a combination of three senses, i.e. driving a vehicle, rowing a boat, and working on a machine. The three senses can be derived based on the arguments associated with the verb, especially on the object. The third set contains usages related to making to go up and down and longitudinally covers three senses. They include the sixth sense of 'moving the fingers quickly as when shaping something', the seventh sense of 'directing one's eyes over something' and the eighth sense of 'running a lesson'. The fourth set of senses covers the usages related to removing. It consists of the ninth sense of 'exorcizing (evil spirit). The fifth set of sense covers the idiomatic usages consisting of the tenth sense 'idle away (time); pass (the time)' and the eleventh sense 'manage (one's affairs with inadequate means).'

The verb *ooTTu* as a transitive verb takes two arguments, the subject who is the driver and the object which is caused to be driven or run. Depending up the semantic features of the arguments the senses are derived or extended. Apart from these two arguments, the other phrases too participate in the correct interpretation of the verb.

There are parallel senses between *ooTTu* and *ooTu* as the former is the transitive form of the latter. As in the case of other causative verbs, *oTTu* also involves two actions: the process of causing and the resultant state of the cause. Based on the Pustejovsky's principles of generative lexicon incorporating event structure, argument structure, qualia structure and lexical inheritance structure *ooTTu* can be given the following semantic structure:

$$
\begin{bmatrix}
\textit{ooTTu} & & \\
\text{EVESTR} = & \begin{bmatrix} \text{E1: e1:process} \\ \text{E2: e2: state} \\ \text{RESTR} = \langle\, ? \\ \text{HEAD} = \text{e1} \end{bmatrix} & \\
\text{ARGSTR} = & \begin{bmatrix} \text{ARG1} \boxed{1} & \\ \text{ARG2} \boxed{2} & \begin{bmatrix} \text{physobj} \\ \text{FORMAL=entity} \end{bmatrix} \end{bmatrix} & \\
\text{QUALIA} = & \begin{bmatrix} \text{Default-causative-lcp} \\ \text{FORMAL} = \textit{ooTu}\text{_result (e2, } \boxed{2} \text{)} \\ \text{Agentive} = \textit{ooTTu}\text{_act (e1, } \boxed{1} \text{ , } \boxed{2} \text{)} \end{bmatrix} & \\
\end{bmatrix}
$$

4.3.21.kaTTu

CMTD has given five entries for *kaTTu* based on their contrastive meanings. Among these *kaTTu*[1] and kaTTu[2] are verbs, the former is a main verb and the latter is an auxiliary verb. CMTD has listed 26 senses for *kaTTu*[1]. They have been tabulated below with their examples; the examples are analyzed based on the argument structure of the verb *kaTTu*.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ reason/manner
A. Usages related to making					
1	Construct (house, bridge, etc.); build (nest, etc. as birds, honey bees, etc.)	1. *pattu maaTik kaTTiTam kaTTum paNi ndaTandtukoNTirukkiRatu* 'The construction of ten storied building is going on' 2. *katavin caavit tuLaiyil kuLavi kuuTu kaTTiyirundatu.* 'The wasp has built a nest in the key hold'	1. – 2. *kuLavi* 'wasp'	1. *pattu maaTik kaTTiTam* 'ten storied building' 2. *kuuTu* 'nest'	1. – 2. *caavi tuLaiyil* 'in the key hole'
2.	Inlay (stones in ornament); have a denture fixed	1. *mootirattukkup paccaikkal kaTTinaal azhakaaka irukkum.* 'The ring will look beautiful if it is inlayed with a green stone.' 2. *avar tangkappal kaTTiyirukkiRaar.* 'He has fixed a gold tooth'	1. – 2. *avar*	1. *paccaikkal* 'green stone' 2. *tangkappal* 'gold tooth'	1. *mootira-ttukku* 'to the ring'
3.	Compose (a song)	*andtak kaalattil kaTTiya paaTTukaLaik kuuttil paaTiyirukkiRaarkaL.* 'They have sung the song composed in the earlier days in the folk drama.'	–	*paaTTukaLai*	*andtak kaalattil* 'in those days'
4.	Build (ship, coach, etc.)	1. *rayil peTTi kaTTum tozhiR caalai onRu cennaiyil irukkiRatu.* 'There is factory to build rail coach'	1. – 2. –	1. *rayil peTTi* 2. *kappal* 'ship'	1. *tozhiRcaalai* 2. *kuuTam* 'factory'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
		2. *kappal kaTTum kuuTam onRai aracu amaikkavirukkiRatu.* 'The government is going to establish a factory to build ship.' 3. *muungkil muLLai veTTip paTal kaTTikkoNTirundaan.* 'He was making a fence by cutting the thorny stems of bamboo.' 3. *vevvERu uttikaLaip payanpaTutti inda ndaaval kaTTappaTTirukkiRatu* 'This novel is built with different ideas.'	3. *avan* 'he' 4. –	3.*paTal* 'fence' 4. *inda ndaaval*	3. *muungkil muLLai veTTi* 'by cutting the thorny stems' 4. *vevvERu uttikaLai payanpaTutti* 'by making use of many ideas'
5.	Heap up earth at the base (of a plant) as a support	*payirkkaalil maNNaik kaTTikoNTirundtaan* 'He was heaping up earth at the base of the crop'	*avan* 'he'	*maNNai* 'earth'	*payirkkaalil* 'at the base of crop'
6	Make (page of a book)	1. *munpellaam accakangkaLil ciramappaTTu pakkam kaTTikoNTiruppaarkaL.* 'In those days they would be making pages of books in the printing press with difficulty.'	1. *avarkaL* 'they'	1. *pakkam* 'pages'	1. *accakang-kaLil* 'in the printing press'
B. Usages related to joining					
7	Fasten somebody with something; tie (something) up;	1.*tiruTanaip piTittut tuuNooTu kaTTiyirundaarkaL* 'They have fastened the thief with the pillar'	1. *avarkaL* 'they' 2. *avaL* 'she'	1. *tiruTanai* 'thief' 2. *kunjcalam* 'tassel'	1. *tuuNooTu* 'with the pillar'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
	tie a packet etc.with a string); pack (something)	2. *caTaiyin nduniyil kunjcalam kaTTiyirundaaL* 'She has tied a tassel at the end of her plaited hair' 3. *oru kiloo ariciyaip poTTalam kaTTi koTungkaL.* 'Tie a packet of a kilo of rice'	3. *ndiing-kaL* 'you'	3. *oru kilo ariciayai* 'one kilo of rice' *poTTalam* 'packet';	2. *caTaiyin nduniyil* 'at the end of the plaited hair'
8	Bandage (the injured part of the body)	1. *elumpu muRindta iTattil maruttuvar kaTTuk kaTTiviTTaar* *'The doctor bandaged the broken part of the bone'* 2. *puNNil marundtu vaittut tuNiyaal kaTTinaaL* 'She bandaged the wound with a cloth putting medicine on it'	1. *maru-ttuvar* 'doctor' 2. *avaL* 'she'	1. *kaTTu* 'bandage' 2. *puNNil* 'wound'	1. *elumpu muRindta iTattil* 'in the broken part of the bone' 2. *marundtu vaittu* 'putting medicine'; *tuNiyaal* 'by cloth'
9	Wear (a saree, dothi etc.); tie (a piece of cloth around the head, waist, etc.)	1. *kalyaaNattiRkup pookap paTTu puTavai kaTTikkoNTaaL.* 'She wore a silk saree to go for a marriage' 2.*talaiyil kaTTiyirundta tuNTai eTuttu iTuppil kaTTikkoNTaan.* 'He took away the cloth tied on the head and tied around his waist' 3.*veeTTiyai maTittuk kaTTikkoNTu tooTTa-veelaiyiliRangkinaan.* 'He tided the dothi folded and started doing garden work.'	1. *avaL* 'she' 2. *avan* 'he' 3. *avan* 'he'	1. *paTTup puTavai* 'silk saree' 2. *tuNTu* 'small cloth' 3. *veeTTi* 'dothi'	1. *kalyaa-NattiRkup pooka* 'to go for a marriage' 2. *talaiyil* 'on the head'; *iTuppil* 'in the waist' 3. *maTittu* 'having folded'

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Location/ reason/manner
10	Wear (wrist-watch, talisman, etc.)	1.*avar vilai uyarndta kaTikaaram onRaik kaTTiyirundaar.* 'He was wearing a costly wristwatch' 2. *indta taayattaik kaTTi-kkoLLungkaL ellaam cariyaakiviTum enRaar puucaari.* 'The priest said that 'Tie the talisman; all will be alright.'	1. *avar* 2.*ndiingkaL* 'you'	1.*vilai uyarndta kaTikaaram onRai* 'a costly wristwatch' 2. *indta taayattai* 'this talisman'	–
11	Blind bold	*tiiviravaadikaL avaraik kaNNaik kaTTi kaTatti cenRaarkaL* . 'The terrorists blindfolded him and took him away.'	*tiiviravaa-tikaL* 'terrorist'	*kaNNai* 'eye'	–
12	Tie a knot (as when getting married)	1. *aRupataam kalyaaNattilum taali kaTTappaTum.* 'Holy cord with pendant will be tied during 60th wedding day too' 2. *maNappeNNukkut taaymaaman paTTam kaTTinaan.* 'The mother's brother tied the thread with the gold coin to the bride'	1. – 2.*taaymaa-man* 'mother's brother'	1. *taali* 'holy cord with pendant' 2. *paTTam* 'gold coin to the bride'	1.*aRupataam kalyaaNattilum* 'even in 60th marriage' 2. *maNappe-NNukku* 'to the bride'
13	Yoke (oxen to a cart, plough, etc.)	1.*tamizh ndaaTTil perumpaalum eeril erumaikaLaik kaTTi uzhuvatillai.* 'In Tamilnadu there is no practice of ploughing by yoking buffalo.' 2. *uurukkup pooka vaNTi kaTTikoNTu vaa.* 'Bring the cart yoked the cart so as to to go to village.'	1. – 2. *ndii* 'you'	1.*erumaikaLai* 'buffalo' 2. *vaNTi* 'cart'	1. *eeril* 'with the plough' 2. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
14	String up (flowers)	1. *utirippuu vaangkik kaTTikkoNTirukkiRaaL* 'She bought individual flowers and string them together' 2. *aaL uyara maalaiyaik kaTTikoNTu vandtirukkiRaarkaL* 'They have come after strining up a garland of a man's height'	1. *avaL* 'she' 2. *avarkaL* 'they'	1. *utirippuu* 'individual flowers' 2. *aaL uyara maalai* 'garland of man's height'	
15	Make peeda by (rolling betal leaves)	*iraNTu piiTaa kaTTik koTu*. 'Make two *peedas* and give me'	*ndii* 'you'	*iraNTu piiTaa* 'two peeda'	
16	Fold (hands across the chest or around the knees)/ keep (the hands) folded (at the back)	1. *maarpil kai kaTTi ndiRkum viveekaa-ndtarin uruvappaTam.* 'The picture of Vivekananda standing with folded hands across the chest.' 2. *kaiyaip pin puRamaakak kaTTikoNTu ulaattinaan.* 'He was strolling having folded his hands at the back.'	1. *vivee-kaandtar* 'Viveka-nanda' 2. *avan* 'he'	1. *kai* 'hand' 2. *kaiyai* 'hand'	1. *maarpil* 'on the chest' 2. *pinpu-Ramaaka* 'at the back'
C. Other usages					
17	Marry	1. *kaTTinaal attaip peNNait taan kaTTuveen enRu avan oRRaikkaalil ndinRaan.* 'He was very adamant to marry his aunt's daughter'	1. *avan* 2. *enakku* 'to me'	1. *attaip peNNait taan* 'only aunty's daughter' 2. *ungkaL peNNai* 'your daughter'	1. – 2. *enakku* 'to me'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
		2.*ungkaL peNNai enakku kaTTit taruviirkaLaa enRu avariTam tairiyamaakak keeTTaan.* 'He asked him boldly whether he would give him his daughter to marry.'			
18	Dam up (water)/ stagnate	*vayalil kaTTiya taNNiirai yaaroo tiRandtu viTTaarkaL.* 'Somebody opended the damedup water in the paddy field.'		*taNNiir* 'water'	*vayalil* 'in the field'
19	Accumulate (as phlem, blood); clot	1. *ndenjil caLi kaTTiyirukkiRatu.* 'The phelm has accumulated in the chest' 2. *kiizhee vizhundtatil avanukkut toTaiyil irattam kaTTiviTTatu.* 'The blood got accumulated in his thigh as he fell down' 3. *kaalil ndiir kaTTiyirukkiRatu* 'The water has accumulated in the leg.'	1. *caLi* 'phelm' 2. *irattam* 'blood' 3. *ndiir* 'water'	1. – 2. – 3. –	1. *ndenjil* 'in the chest' 2. *toTaiyil* 'in the thigh' 3. *kaalil* 'in the leg'
20	Be enough; be reasonable (as price, rent, charges, etc.)	1.*muppatu ruupaayp poruLaip pattu ruupaaykuk keeTTaal eppaTi kaTTum*? 'How is it enough if you ask thirty rupees woth thing for ten rupees?' 2.*ndiingkaL keeTkiRa vilai enakku kaTTaatu*	1. – 2. –	1. – 2. *ndiingkaL keTkiRa vilai* 'the price you have asked for'	1.*pattu ruupaaykuk keeTTaal* 'if aked for ten rupees' 2. *enakku* 'to me'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
21	Pay (fees, interest, etc.)	1. *ndaaLaik kaalait teervukkup paNam kaTTiviTu.* 'Remit the fee for the examination tomorrow morning.' 2. *ozhungkaaka vaTTi kaTTi varukiReen* 'I am paying the interest regularly'	1. *ndii* 'you' 2. *ndaan* 'I'	1.*paNam* 'fee' 2.*vaTTi* 'interest'	1. *ndaaLaik kaalai* 'tomorrow morning'; *teervukku* 'for the examination' 2.*ozhungkaaka* 'regularly'
22	Bet (in a horse race)	*endtak kutirai miitu paNam kaTTuvatu enRu teriyavillai* 'I don't know which horse to bet on'	*enakku* 'to me'	*paNam* 'money'	*endtak kutirai miitu* 'on which hourse'
23	Play (a part in a stage play, film)	1.*anda kaalattil engkaL taattaa kaTTi aaTaata veeTamee illai.* 'There was no role which our grand father had not played in those days' 2.*avar endta veeTam kaTTinaalum paattirattooTu. porundtiviTuvaar* 'He would assimilate with whatever the role he played.'	1.*engkaL taattaa* 'our grand-father' 2. *avar* 'he'	1. *veeTam* 'role' 2. *veeTam* 'role'	
24	Brand somebody; label	1.*elloorum ceerndtu enakku tiruTTup paTTam -kaTTi viTTaarkaL.* 'They all together had branded me as a thief' 2. *avan enakkup paittiya-kkaarap paTTam kaTTa-laam enRu paarkkiRaan.* 'He is tying to brand me as a mad person.'	1.*elloo-rum* 'all' 2. *avan* 'he'	1. *tiruTTup paTTam* 'title as thief' 2.*paittiyak kaarap paTTam* 'title as mad person'	1. *enakku* 'to me' 2. *enakku* 'to me'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ reason/manner**
25	Counter act venom (as an antidote)	*paampu vishattaic ciRiyaangkai kaTTum enRu citta maruttuvam kuuRukiRatu.* 'The Sidha medicine says that the medicinal plant *ciriyanagai* would counter act the venom.'	1. *ciRiy-aangkai* 'the medicinal plant *ciriyanagai*'	1. *paampu vishattai* 'snake venom'	
26	Become hard (as stools)/ harden (the stools)	1. *aTikkaTi kiirai caappiTTaal malam kaTTaatu.* 'If you take greens often, the stools would not become hard' 2. *vayiRRuppookku atikamaanaal vendtaiyattaic caappiTungkaL. malattaik kaTTum enRaar vaittiyar.* The doctor advised 'If the loose motion is aggravated consume cumin seed; it would harden the stools'	1. *malam* 'stools' 2. *vend-tayam* 'cumin seed'	1. – 2. *malatai* 'stools'	1. *aTikkaTi kiirai caappiTTaal* 'if one consumes greens often' 2. –

CMTD has grouped the twenty six meanings into three groups.

1. Usages related to making
2. Usages related to joining
3. Other usages

The senses 1 to 6 are grouped under the first set on 'usages related to making'. The senses 'construct (house, bridge, etc.); build (nest, etc. as birds, honey bees, etc.)', 'inlay (stones in ornament); have a denture fixed', 'compose (a song)', 'build (ship, coach, etc.)' and 'heap up earth at the base (of a plant) as a support', 'make (page of a book)' are included in the first set. The prototypical meaning of *kaTTu* is 'construct or build.' This is extended to incorporate inlaying stones, having denture fixed, composing a song, building a ship, railway coach, etc., heaping up earth at the base of a plant as a support and making

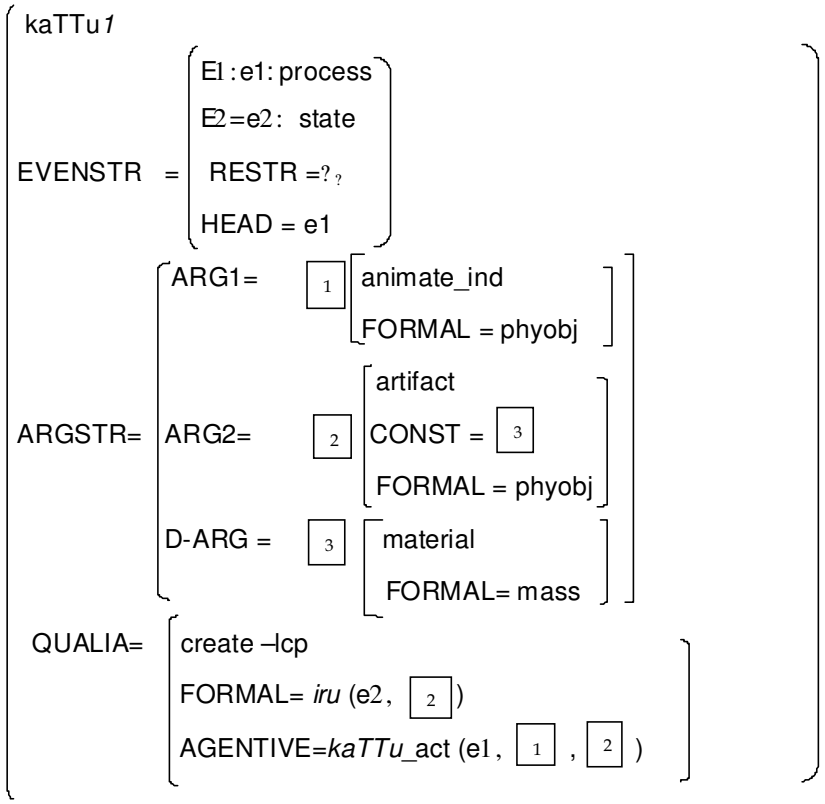
page of a book. Except the fourth sense which can be equated with English sense 'build', the rest of the senses 2nd, 3rd, 5th and 6th are strange partners to the prototypical sense. The third sense 'compose song' does not involve the physical act of putting together something. Except the third sense which denotes 'compose a song' the other five senses involves at least putting some objects together. It is difficult to string all the senses together into one meaning or sub meanings. The first and fourth senses could be considered as complementary senses and the others as contrastive to the prototypical sense.

The senses 7 to 16 have been grouped as second set denoting "usages related to joining" in CMTD. The senses 'fasten somebody with something; tie (something) up; tie a packet etc. with a string); pack (something)', 'bandage (the injured part of the body), 'wear (a saree, *dothi* etc.); tie (a piece of cloth around the head, waist, etc.)', wear (wristwatch, talisman, etc.), 'blindfold', 'tie a knot (as when getting married)', 'yoke (oxen to a cart, plough, etc.)', 'string up (flowers)', 'make *peeda* by (rolling betel leaves)' and 'fold (hands across the chest or around the knees); keep (the hands) folded (at the back)' have been incorporated in the second set. The senses 7 to 15 involve joining of two alienable objects, where as in the case of sense 16 the object involved is inalienable one. The senses translated to English as 'fasten', 'tie', 'yoke' and 'string together' can be considered as semantic extensions of meaning in which the senses are complementary to one another. The 16th sense appears to be a remote extension of meaning and can be considered as a contrastive sense.

The senses 17th to 26th are an assorted group of senses put under the third set 'other usages'. The sense 'marry', 'dam up (water)/ stagnate', 'accumulate (as phlegm, blood); clot', 'be enough; be reasonable (as price, rent, charges, etc.)', 'pay (fees, interest, etc.)', 'bet (in a horse race)', 'play (a part in a stage play, film)', 'brand somebody; label', 'counter act venom (as an antidote)', and 'become hard (as stools); harden (as stools)'. It is difficult to string them together these assorted group of senses into one sub meaning and then extend them to the prototypical sense of 'constructing or building'. It is difficult to conceive all these senses complementary group of senses and formulate rules to derive them from the prototypical sense.

The verb *kaTTu*^{1} is prototypically a transitive verb taking two arguments by default: the subject and the object. The semantic features associated with them complemented by other co-occurring words may promote or trigger the interpretation of different senses.

Based on the Pustejovsky's principles of generative lexicon *kaTTu*^{1} can be assigned the following semantic structure at least for its prototypical sense or other senses which can be considered as direct extensions of the prototypical sense (Pustejovsky 1995: 82).



The process is identified as the AGENTVE act involving both the deep syntactic subject, ARG1, and the default argument, D-AGR. The default argument, D-AGR is related to the logical object by the CONSTITUTIVE relation of AGR-2. The formal role expresses the resulting state of there being such an object ARG-2. The individual is defined as being made of the material of the default argument D-AGR1. But logically distinct from it, there are two possibilities for existential closure on such as event structure, as illustrated below.

1. *raajaa oru viiTu kaTTikkoNTirukiRaan*
   'Raja is building a house'
   ∃z∃y [kaTTu_act (e1, j, z)^material(z)…]
2. *raajaa oru viiTu kaTTinaan*
   'Raja built a house'

4.3.22.kalai

In CMTD, *kalai* has been given four entries; the first two are verbs and the other two are nouns. The verb *kalai*[1] is an intransitive form and *kalai*[2] is the transitive form of *kalai*[1]. Among them three are verb entries and two are verbs.

kalai[1]

CTMD has listed verb 6 senses for *kalai*[1]. They have been listed below with examples for each sense. The examples are analysed into argument structures.

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner**	**Location/ Reason**
1	Become disorderly (as an orderly arrangement); become dishevelled	1. *maTittu aTukki vaittirundta tuNikaL kalaindtu kiTandtana.* 'The closes which were folded and arranged became disarranged.' 2. *uurvalattinar varicai kalaiyaamal amaitiyaakac cenRanar.* 'The participants of the procession went calmly without breaking the line.' 3. *talaimuTi kalaindtu kaatukaLai muuTikoNTatu* 'The hair on the head became disorderly and closed the ears.'	1. *maTittu aTukki vaittirundta tuNikaL* 'the clothes kept folded' 2. *uurvala-ttinar* 'participants of the procession' 3. *talaimuTi* 'hair on the head'	1.– 2.*varicai* 'line' 3. *kaatukaLai muuTikoNTatu* 'closed the ears'	–
2	Come to an end (as sleep, meditation, etc.); get disturbed	1.*engkaLiTaiyee ndilaviya maunam avaratu keeLviyaal kalaindtatu.* 'The silence existed between us came to end by his question' 2. *katavu caattappaTum cattam keeTTut tuukkam kalaindtatu.* 'The sleep was disturbed by the noise of closing the door'	1.*engkaLi-Taiyee ndilaviya maunam* 'the silence existed between us' 2. *tuukkam* 'sleep' *ndiindi manRam* 'court'	_	1. *avaratu keeLviyaal* 'his question' 2. *katavu caattappaTum cattam keeTTu* 'by hearing the sound of the closing of the door'

Sr. No.	Senses	Example	Arguments		
			Subject	**Manner**	**Location/ Reason**
3	Be over (as working hours of an office); adjourn	1. *andta vaaliparai ndiindi manRam kalaiyumvaraiyilum kaavalil vaikka uttaraviTappaTTatu.* 'It was ordered to keep that young man under custody till the dispersal of the court.'		–	–
4	Disperse (as crowd, clouds, etc.); get scattered	1. *mazhai varum poolirundtatu, aanaal meekam kalaindtuvi-TTatu.* 'It appeared that it was going to rain, but the clouds dispersed.' 2. *vizhaa muTindtatum kuuTTam kalaindtatu.* 'The crowd dispersed after the end of the function.'	1. *meekam* 'clouds' 2. *kuuTTam* 'crowd'	1.– 2.–	1. – 2. *vizhaa muTindtatum* 'as soon the function is over'
5	Get smudged or erased (as something written or drawn)	1. *ndeRRiyil kungkumam kalaindtirundatu.* 'The vermilion on the forehead got smudged.' 2. *palaruTaiya kaalaTi paTTuk koolam kalaindtirundtatu.* 'The *kolam* had been smudged having touched by the foot steps of many.'	1. *kung-kumam* 'vermilion' 2. *koolam* '*kolam'*	1.–	1. *ndeRRiyil* 'on the forehead' 2. *palaru-Taiya kaalaTi paTTu* 'having touched by foot steps of many'
6	Get miscarried (as foetus)	*avaLukku eeRpaTTa atircciyilaal karu kalaindtataaka maruttuvar kuuRinaar.* 'The doctor said that the foetus got miscarried due to the shock occurred to her.'	*karu* 'foetus'		*avaLukku eeRpaTTa atircciyaal* 'by the shock occurred to her'

As shown in the table the verb *kalai*[1] has six senses which includes 'become disorderly (as an orderly arrangement); become dishevelled', 'come to an end (as sleep, meditation, etc.); get disturbed', 'be over (as working hours of an office); adjourn', 'disperse (as crowd, clouds, etc.); get scattered', 'get smudged or erased (as something written or drawn),' and 'get miscarried (as foetus)'. The first sense 'become disorderly (as an orderly arrangement); become dishevelled' appears to be the prototypical meaning of *kalai*[1]. The argument structure of each sense can help us to derive the five secondary senses as extensions of the prototypical sense. The argument structures as shown in the table can help one to interpret the correct sense of *kalai*[1] by context.

***kalai*[2]**

The verb *kalai*[2] is the transitive form of the verb *kalai*[1]. CMTD has listed 9 senses for *kalai*[2]. They have been tabulated below with examples. The examples are analyzed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner
1	Change the order; shuffle	1.*tayavuceytu aTukki vaittirukkum puttakangkLai eTuttuk kalaikkaatiirkaL* 'Please don't dishevel the books kept arranged by taking them' 2.*vaariyirunda talaimuTiyaic caTTenRu viiciya kaaRRu kalaittu viTTatu*. 'The sudden blow of the wind dishevelled the combed hair' 3.*ciiTTaik kalaittup pooTu*! 'Shuffle the cards (and distribute).'	1.*ndiingkaL* 'you' 2. *caTTenRu viiciya kaaRRu* 'the wind which blew suddenly' 3. *ndii* 'you'	1. *aTukki vaittirukkum puttakangkaLai* 'the books kept arranged' 2. *vaariyirundta talaimuTiyai* 'the combed hair' 3. *ciiTTai* 'cards'	1. *eTuttu* 'by taking' 2. –
2	Bring to an end; disturb	1. *cattam pooTTup peeci taattaavin tuukkattaik kalaittuviTaatee*. 'Don't disturb the grand father's sleep by making noise.'	1. *ndii* 'you' 2. *avarkal* 'they' 3. *avarkaL* 'they'	1. *taattaavin tuukkattai* 'grand father's sleep' 2. *tavatai* 'penance'	1. *cattampoo-TTup peeci* 'by talking loudly' 2. –

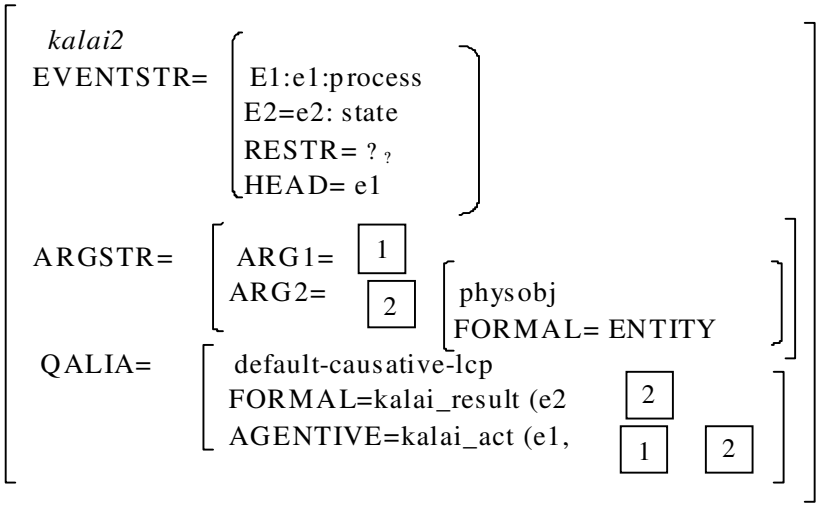
Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner**
		2.*tan tavattaik kalaittavarkaLukku munivar caapam koTuttaar.* 'The saint gave a curse to those who had disturbed his penance.'			
3	Disperse	1.*kumpalaik kalaikkak kaavalar kaNNiirppukaik kuNTukaLai veTittanar.* 'The police bursted the teargas bombs to disperse the gathering' 2. *cuuRaavaLik kaaRRu meekangkaLaik kalaittuviTTatu.* 'The whirlwind had dispersed the clouds.'	1. *kaavalar* 'police' 2. *cuu-RaavaLik kaaRRu* 'whirl-wind'	1.*kumpalai* 'crowd' 2.meekang-kaLai 'clouds'	1. *kaNNiir-ppukaik kuNTukaLai veTittanar* 'they bursted the teargas bombs'
4	Erase	1. *ndeRRik kungkumattai viyarvaik kalaittirundtatu.* 'The sweat has erased the vermilion on the forehead' 2. *tavazhndtu cenRa kuzhandtai koolattaik kalaittuviTTatu.* 'The child which went by crawling had erased the *kolam.'*	1. *viyarvai* 'sweat' 2.*tavaz-hndtu cenRa kuzhan-dtaiyai* 'the child which went by crawling'	1. *ndeeRRi kummattai* 'vermillion on the forehead' 2. *koolam* '*kolam* (a kind of drawing)'	
5	Dissolve (an assembly)	*paaraaLumanRattaik kalaittuviTTup potut teertal ndaTatta piratamar utteecittu-LLaar.* 'The priminister has contemplated to dissolve the parliament and conduct the general election.'	*piratamar* 'priminister'	*paaraa-LumanRattai* 'parliament'	*potut teertal ndaTatta* 'to conduct the general election'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner**
6	Disband	*tangkaL iyakkattaik kalaittuviTTu janandaaya muRaikku varumpaTi tiiviravaatikaLaip piratamar keeTTukkoNTaar.* 'The prime minister has requested the extremists to disband their organization and join the democracy.'	*tiiviravaatikaL* 'extremists'	*tangkaL iyakkattai* 'their organization'	–
7	Abort (pregnancy)	*aarampa ndilaiyil irukkum karuvaik kalaittukkoLvatu caTTappaTi kuRRamaakaatu.* 'It is not a crime to abort the pregnancy at the intial stage'	–	*aarampa ndilaiyil irukkum karuvai* 'pregnancy at the intial stage'	–
8	Spoil (one's mind)	*yaaroo avan manattaik kalaittiruppataal cottaip pirikkac colkiRaan.* 'As somebody has spoiled his mind, he is asking to divide the property.'	yaaroo 'somebody'	*avan manatai* 'his mind'	–
9	Remove (make up)	1. *ndaaTakam muTindtatum kataandaayaki oppanaiyaik kalaittuk koNTirundtaar.* 'The heroine was removing the make up as soon as the drama was over.' 2. *ndii pooTTirukkum ndallavan veeTattaik kalaikkum varai ndaan ooyamaaTTeen.*	1. *kataa ndaayaki* 'heroine' 2. *ndaan* 'I'	1. *oppanaiyai* 'make up' 2. *ndii pooTTirukkum ndallavan veeTattai* 'your disguise as a good person'	1. *ndaaTakam muTindtatum* 'as soon as the drama is over' 2. –

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner
		'I will not cease till I remove your disguise as a good man.'			
10	Chase; send (somebody) out	1. *ndaay aaTTaik kalaittukoNTu cenRatu* 'The dog went by chasing the goats' 2. *ennai viiTTaiviTTuk kalaikkap pookiRaayaa?* 'Are you going to drive me out the house'	1. *ndaay* 'dog' 2. *ndii* 'you'	1. *aaTTai* 'goats' 2. *ennai* 'I'	1. – 2. *viiTTaiviTTu* 'from the house'

The verb *kalai*[2] is the transitive form of the verb *kalai*[1]. Prototypically the verb is capable of receiving two arguments: the subject who is the agent of the action of changing the order or shuffling and the object is the one whose order is changed or shuffled. Prototypically the subject disarranges the object which is in order.

The prototypical sense is 'change the order; shuffle'. The other senses are 'bring to an end; disturb', 'disperse', 'erase', 'dissolve (an assembly)', 'disband', 'abort (pregnancy)', 'spoil (one's mind)', 'remove (make up)' and 'chase; send (somebody) out'. The verb *kalai*[2] is a change of sate verb denoting change from arranged state to disarranged state. In Pustejovsky's view, there are two actions: the process of change executed by the subject and the resultant state attained by the object. Based on the principles of generative lexicon propounded by Pustejovsky, we can arrive at the following semantic structure for *kalai*[2].



4.3.23. ceer

CMTD has two entries for *ceer*. One is the intransitive verb *ceer*[1] and the second is the transitive verb *ceer*[2].

***ceer*[1]**

The verb *ceer*[1] is the intransitive form of the verb *ceer*[2]. CMTD has listed 6 senses for *ceer*[1]. They have been listed below with examples. The examples are analysed for argument structure of the verb.

Sr. No.	Senses	Example	Arguments		
			Subject	Associated entity/ target location	Manner
A. Usages related to join					
1	Come together (as persons or things)	1. *indta aangkila ndaavalai iraNTu peer ceerndtu mozhipeyarttirukki-RaarkaL.* 'This novel has been translated by two persons joined together.' 2. *konjcam poRu ndaam iraNTu peerum ceerndtu poovoom.* 'Wait for sometime. We can go joing together' 3. *ndaankum iraNTum ceerndtaal, aaRu* 'If four and two are added, they make six'	1. *iraNTu peer* 2. *iraNTu peerum* 'we two' 3. *ndaankum iraNTum* 'four and two'	1. – 2. –	1. – 2. –
2	Gather around (a person or a purpose)	1. *anaittut tozhiRcang-kangkaLum pooraa-TTattai munniTTu onRaakac ceerndana.* 'All the labour associations joined together for the sake of agitation' 2. *avar pookumiTang-kaLilellaam kuuTTam ceerkiRatu* 'The crowd is gathered where he goes'	1. *anaittut tozhiRcang-kangkaLum* 'all the labour associa-tions' 2. *kuuTTam* 'crowd'	1. – 2. *avar pookum iTangkaLil ellaam* 'wherever he goes'	1. *pooraa-TTattai munniTTu* 'for the sake of agitation'; *onRaaka* 'joined together' 2. –

Sr. No.	Senses	Example	Arguments		
			Subject	**Associated entity/ target location**	**Manner**
3	Associate (with somebody)	1.*avanooTu ceeraatee, rompa moocamaa-navan.* 'Don't be associated with him; he is very bad' 2. *ungkaLooTu ceerndtaaltaan ndaanum ndiRaiya puttakangkaLaip paTikka aarampitteen.* 'I started reading many books as I got associated with you'	1. *ndii* 'you' 2. *ndaan* 'I'	1. *avanooTu* 'with him' 2. *uNkaLooTu* 'with you'	
4	Join (as road, rivers etc); meet	*teruvum candtum ceerum iTattil oru peerundtu ndiRuttam uLLatu.* 'There is a bus station where the street and the lane joined.	*teruvum candtum* 'street and lane'		
5	Join (as broken pieces)	*muRindta kaiyelumpu ceervataRku ndaanku maatangkaL aakalaam.* 'It will take at least four months for the broken hand bone to join.'	*muRindta kaiyelumpu* 'broken hand bone'		
6	Join (a society, organization); get admitted to	1. *poRiyiyal kalluuriyil ceera virumukiReen.* 'I like to join the engineering college' 2. *avar maruttuvamanaiyil ceerndtu cikiccai peRuki-Raar.* 'He is taking treatment after getting admitted in the hospital' 3. *avar veelaiyil ceerndtu konjca ndaaLileeyee patavi uyarvu peRRuvi-TTaar.* 'He has got promotion immediately after he joined the job'	1. *ndaan* 'I' 2. *avar* 3. *avar*	1. *poRiyiyal kalluuriyil* 'engineering college' 2. *maruttuva-manayil* 'in the hospital' 3. *veelaiyil* 'in the job'	

Sr. No.	Senses	Example	Arguments		
			Subject	**Associated entity/ target location**	**Manner**
B. Usages related to match					
7	Collect (as money)	1. *innum konjcam paNam enniTam ceerndtuviTTaal putu viiTu kaTTa aarampittuviTuveen* 'I will start building the new house when more money is accumulated with me '	*paNam* 'money'	*enniTam* 'to me'	
8	Reach (a destination, place)	1. *ndii ciikkiram puRappaTTaal taan iruTTuvataRku mun viiTukku pooy ceera muTiyum* 'if you start earlier only, you can reach home before dark' 2. *ndaan anuppiya kaTitam pooyc ceerndtataa enRu teriyavillai.* 'It is not known whether the letter I have sent reached the destination or not'	1. *ndii* 'you' 2. *kaTitam* 'letter'	1.*viiTukku* 'to house' 2. –	1. *iruTTuvata-Rku mun* 'before dark'
9	Reach	*ndaan anuppiya paNam unakku vandtu ceerndta uTaneeyee enakkut terivikkavum.* 'Inform me as soon as the money I have sent reached you.'	*ndaan anuppiya paNam* 'the money sent by me'	*unakku* 'to you'	–
10	Go (as a property to a person)	*uyilin paTi avaruTaiya cottu anaittum indta paLLikkuc ceerum.* 'All his property will go to the school as per the will'	*avaruTaiya cottu anaittum* 'all his property'	*indta paLLikku* 'to the school'	–

Sr. No.	Senses	Example	Arguments		
			Subject	**Associated entity/ target location**	**Manner**
C. Usages related to match					
11	Fit	1. *indta caavi viiTTiluLLa ellaap puuTTukkum ceerum.* 'This key will fit to all the locks in the house' 2. *indtac caTTai yaarukkum ceeraatu poolirukkiRatu* 'It appears that this shirt will not fit to anybody'	1. *indta caavi* 'this key' 2. *indtac caTTai* 'this shirt'	1.*ellaap puuTTukkum* 'all locks' 2. *yaarukkum* 'to none'	
D. Usages relted to gather in a place					
12	Get accumulated	*avanukkup palveeRu vazhikaLil paNam ceerukiRatu.* 'The money is accumulated to him in many ways'	*paNam* 'money'	*avanukku* 'to him'	*palveeRu vazhikaLil* 'by many ways'
13	Collect (as dirt, clothes)	1. *ndaka iTukkil azhukku ceerndtirukkiRau.* 'The dirt has collected in the nail gap' 2. *azhukkut tuNi ndiRaiyac ceerndtuviTTatu*; *tuvaippataRku ndeeram illai.* 'A lot of dirty clothes got collected; there no time to wash.'	1.*azhukku* 'dirt' 2. *azhukut tuNi* 'dirty clothes'	1. *ndaka iTukkil* 'in the nail gap'	1.– 2. –

CMTD groups the thirteen senses into three sets which are listed below:

1. Usages related to join
2. Usages related to get
2. Usages related to match

The usages related to join contain six senses which include 'come together (as persons or things)', 'gather around (a person or purpose)', 'associate (with somebody)', 'join (as road, rivers, etc.); meet', 'join (as broken pieces)' and 'join (a society, organization); get admitted to'. The verb is basically or prototypically an intransitive verb. The subject is the agent of the action of joining. It can take an argument (associating entity) to which the subject joins. In the first sense which is the prototypical sense, the subject itself contains two

or more portions which involves in joining. In the senses 2, 4 and 5, the subject itself has the joining entity and the entity with which it joins. In the third sense, the entity to which something 'joins' is marked for the sociative case marker *-ooTu*. In the 6th sense, the entity to which the subject 'joins' is marked for the locative case.

The usages related to get contain four senses (7th sense, 8th sense, 9th sense, and 10th sense) which include 'collect (as money)', 'reach a destination, place', 'reach', and 'go (as a property to a person)'. In the seventh sense, the subject argument is the entity which is collected. The beneficiary argument is marked by possessor marker *–iTam*.The case suffix *iTam* can be replaced by dative *-ku* also. The senses 8 and 9 require the collocation of the adverbial participle form the verbs *vaa* 'come' and *poo* 'go' to promote the sense 'reach'. The resultant combinations *vandtu ceer* '(having come join) reach' and *pooyc ceer* '(having come join) reach' take a directional argument marked with dative *-ku* for its interpretation. The 10th sense does not need the support of *vaa* 'come' or *poo* 'go'. But it takes a directional or beneficiary argument marked by dative *-ku*.

Usage related to match has only one sense (11th sense), i.e. 'fit'. In this sense the verb takes a subject which is the subject which suits and a dative case marked (*ku* marked) argument which denotes the entity for which the subject suits.

The usages related to gather in a place contains two senses (12th and 13th senses) which include 'get accumulated (as wealth)' and 'collect (as dirt, clothes)'. In the 12th sense the verb can take a beneficiary marked by dative *-ku* and in the 13th sense the verb can take a location marked by locative *-il*.

The semantic extension of *ceer*[1] from 'joining' to 'accumulating' via 'getting' and 'fitting properly' is interesting. The semantic change (better not to say 'semantic extension') can be attributed to the argument structure of the verb for each sense coupled with the semantic features attributed to the entities which function as arguments. This can be represented as follows:

ceer[1] [NP (sub) + NP-*ooTu* (sociative)/NP-*ku* (directive)/NP-*il* (locative)

***ceer*[2]**

The verb *ceer*[2] is the transitive (causative) form of the verb *ceer*[1]. Though their base forms are same, they differ by the tense suffixes they take (for example *ceer*[1] will take *-ndt-* as the past tense suffix and *ceer*[2] will take *-tt-* as the past tense suffix).

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner/reason location
A. Usages related to cause to become united					
1	Assemble (people)	1. *tiraippaTat tozhilndu-Tpak kalainjarkaL anai-varaiyum ceerttu oor am-aippu uruvaakka-ppa-TukiRatu*	1. – 2. *avan* 'he'	1. *tiraippaTa tozhilnduTpak kalainjarkaL anaivaraiyum*	–

Sr. No.	Senses	Example	Arguments		
			Subject	Object	Manner/reason location
		'An organization is formed uniting all the artists of film industry.' 2.*ennai aTippataRku avan aaL ceerkkiRaanaamee?* 'Is he is uniting persons to attack me?'		'all the artists of cinema industry' 2. *aaL* 'persons'	
2	Collect (things)	1. *tapaal talaikaLaic ceerppatil enakku aarvam atikam.* 'I have more interest in collecting postal stamps' 2.*ivai avar ceerttirukkum pazhaiya ndaaNayangkaL* 'These are the old coins collected by him.'	1. *enakku* 'I' 2. *avar*	1. *tapaal talaikaLai* 'postal stamps'' 2. *pazhaiya ndaa-NayangkaL* 'old coins'	
3	Earn (money)	1.*avan veLindaaTTukkp pooyc ceertta paNattai-yellaam viiTaaka vaangkik kuvikkiRaan.* 'He is bying a lot houses from the money he earned by going to the foreign country' 2. *viiNaaka uur cuRRuva-tai viTTu viTTu oru vee-laiyil ceerndtu kaacu ceerkkiRa vazhiyaip paar.* 'Find a way to earn money instead roaming around'	1. *avan* 2. *ndii* 'you'	1. *paNattaiye-laam* 'all money' 2. *kaacu* 'money'	1. *veLindaa-TTukkp pooy* 'having gone to the foreign country' 2. *oru veelaiyil ceerndtu* 'by joining a job'
4	Save (money)	1. *campaatitta kaacaiye-llaam ceerttuvaikkaa-mal celavu ceytuviTTu ippootu cooRRukkee tiNTaaTukiRaar.* 'Having not saved the money he has earned, he is now suffering without food.'	1. *avar* 2. *ndaan* 'I'	1. *campaatitta kaacaiyel-laam* 'money earned' 2. *paNam monwy*	1. – 2. *peNNin meel paTippi-Rkaaka*

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/reason location**
		2.*peNNin meel paTippiR-kaakap paNam ceerttu-kkoNTirukkiReen* I am saving money for my daughters higher education			
B. Usages related to reach					
5	Cause (someone) to reach (a place)	1. *paaTTiyai eppaTittaan uurukkuk koNTupooyc ceerkkapookiReenoo!* 'I don't how to reach the grandmother to the village' 2. *indta kaTittai avariTam ceerttuviTu.* 'Reach this letter to him'	1. *ndaan* 'I' 2. *ndii* 'you'	1. *paaTTiyai* 'grand mother' 2. indta *kaTitattai* 'this letter'	1. *uurukkuk koNTupooy* 'taking to home town' 2. *avariTam* 'to him'
6	Handover (something to someone); post (a letter)	1. *kaTitattait tapaalil ceerttuviTTaayaa*? 'Have you posted the letter?' 2. *ndiingkaL koTutta paNattaip pattiramaaka ungkaL viiTTil ceerttuviTTeen.* 'I have handed over the money you have given me to home.'	1. *ndii* 'you' 2. *ndaan* 'I'	1. *kaTitattai* 'letter' 2. *ndiingkaL koTutta paNattai* 'the money you have given me'	1. *tapaalil* 'in the post' 2. *ungkaL viiTTil* 'your house'
7	Admit (someone to something); enroll; recruit	1. *kuzhandtaikaLaip paLLiyil ceerkka ndan-koTai koTukkaveeNTi-yirukkiRatu* 'One has to give donation to admit the children in the school.' 2. *ndeeRRutaan avarai maruttuvamanaiyil ceerttoom.* 'We admitted him in the hospital yesterday only'	1. – 2.*ndaang-kaL* 'we'	1. *kuzhand-taikaLai* 'children' 2. *avar* 'he'	1. *paLLiyil* 'in the school' 2. *maruttuva-manaiyil* 'in the hospital'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/reason location**
C. Usage related to cause to join					
8	Include (something)	1. *indta akaraatiyil aiympataayirattiRkum atikamaana coRkaL ceerkkappaTTirukkinRana* 'More than fifty thousand words are included in this dictionary.' 2. *peNNiya ezhuttaaLar varicaiyil ivaraiyum ceerkkalaam.* 'She can be included in the list of feminist writers.'	1. – 2. –	1. *aiympataay-irattiRkum atikamaana coRkaL* 'more than fifty thousand words' 2. *ivar* 'he'	1. *indta akaraatiyil* 'in this dictionary' 2. *peNNiya ezhuttaaLar varicaiyil* 'in the list of feminist writers'
9	Mix	1. *kaappiyil konjcam paal-aic ceerkkaTTumaa*? 'Can I mix the milk in the coffee?' 2. *pacai kaTTiyaaka irukki-Ratu. konjcam taNNiir ceerttukkoL.* 'The glue is hard. Mix some water.'	1. *ndaan* 'I' 2. *ndii* 'you'	1. *konjcam paalai* 'some milk' 2. *taNNiir* 'water'	1. *kaappiyil* 'in the coffee' 2. *pacai* 'glue'
10	Add a quality to something	1. *tonmak kuRiyiiTukaL indtak kavitaikkup putiya parimaaNattai ceerkkinRana.* 'Mythological symbols are adding new dimension to this poem.' 2. *indtap putiya puungkaa cennai maandakaratti-Rku ezhil ceerkkiRatu.* 'This new park adds beauty to Chennai city'	1. *tonmak kuRiyi-iTukaL* 'mytho-logical symbols' 2. *indtap putiya puungkaa* 'this new park'	1. *putiya parimaaNattai* 'new dimension' 2. *ezhil* 'beauty'	1. *indtak kavitaikku* 'to this poem' 2. *cennai maandaka-rattiRku* 'to Chennai city'
11	Join; link	1. *koTuttirukkum eN varicaiyil puLLi-kaLaic ceerttaal oru vilangkin paTam kiTaikkum.*	1. – 2. *iruvar* 'two persons'	1. *puLLikaLai* 'dots' 2. *kai* 'hand'	1. *koTuttirukkum eN varicaiyil* 'in the given order of numbers'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Manner/reason location**
		'If you join the given dots in the order of numbers you will get an animal picture.' 2.*kaiyooTu kai ceerttukkoNTu iruvarum ndaTandtaarkaL.* 'They walked joining heands' 3. *ennai avanuTan ceerttup peecaatiirkaL* 'Don't talk linking me with him.'	3.*ndiingkaL* 'you'	3. *ennai* 'I'	2. *kaiyooTu* 'with the hand' 3. *avanuTan* 'with him'
12	Add	*ndaankuTan iraNTaic ceerttaal aaRu kiTaikkum* 'If you add two with four, you will get six.'	–	*iraNTai* 'two'	*ndaankuTan* 'with four'
13	Score (run) (in cricket)	*toTakka aaTTakkaararkaL maTTumee 175 ooTTangkaL ceerttanar.* 'Only the starting players scored 175 runs'	*toTakka aaTTakkaa-rarkaL* 'starting players'	*175 ooTTangkaL* '175 runs'	–

The thirteen senses of verb *ceer*[2] have been grouped into three sets. They are given below:

1. Usages related to cause to become united
2. Usages related to reaching
3. Usage related to cause to join

The senses 1 to 4 are grouped under the first set concerned with 'usages related to cause to become united'. They include senses such as 'assemble (people)', 'collect (things)', 'earn (money)' and 'save (money)'. The *ceer*[2] is a transitive verb. Prototypically the verb requires a subject which causes joining and an object which joins. The object contains a group of entities that are joined. The second sense 'collect' needs a subject which collects and an object which is collected for its correct interpretation. The object is a group of

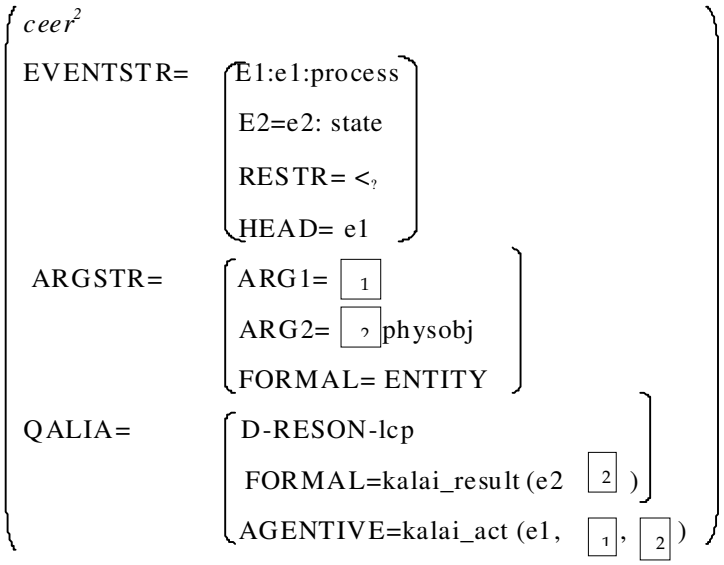
entities. The third sense 'earn' needs a subject that earns and an object that is earned. The object with this sense is not a group of things. The third sense 'save' need a subject that saves and an object that is saved.

The senses 5 to 7 are grouped under the second set concerned with 'usages related to reaching'. They include senses such as cause (someone) to reach (a place)', 'hand over (something to someone); post (a letter)' and 'admit (someone to something); enroll; recruit'. The 5th sense 'reach' takes a subject who causes 'reaching' and an object which is caused to reach a destination. The destination is the third argument required by the verb for the proper interpretation of this sense. The sixth sense contains two sub senses: 'hand over' and 'post'. The sub sense 'hand over' requires a subject who hands over an object and the receiver which receives the object.

The senses 8 to 13 are grouped under the third set concerned with 'usage related to cause to join'. They cover senses such as 'include (something)', 'mix', 'add a quality to something', 'join; link', 'add' and 'score (run) (in cricket)'. The 8thsense 'include something' takes a subject by default who is the agent of inclusion and the object which is included and a third argument where the object is included. The 9th sense 'mix' takes a subject who is the agent of 'mixing' and the object which is mixed and a the third argument to which (realized mostly by the locative phrase) the object is mixed. The 10th sense 'add a quality to something' takes a subject which is the entity that adds a quality and the object which is an entity that represent the quality and the third argument is realized as a dative phrase to which the quality is added. The eleventh sense 'join; link' requires a subject argument which is the agent of 'joining or linking' and an object that is joined or linked and a third argument to which the object is linked or joined. The subject as usual is realized as a nominative phrase and the object as the accusative phrase and the third argument is realized as the sociative phrase (marked by the sociative case marker *-ooTu*). The twelfth sense 'add' takes a subject who is the agent of adding and an object that is added and a third argument to which the object is added. The subject as usual is realized as a nominative phrase and the object as the accusative phrase and the third argument is realized as the sociative phrase (marked by the sociative case marker *-uTan*/*-ooTu*).

The argument structure of this verb can be put into the following frame:
ceer^{2} [NP (Sub)+ NP-*ai* (Obj)+NP-{*ooTu*/*uTan*}/NP-*iTam*/NP-*il*]

When we analyze the argument structure of the verb *ceer*^{2} in terms of its different senses and the argument structures, it can be stated that the different senses are not contributed by the subject of the argument structure; the other arguments given above contribute to the correct interpretation. The semantic structure of the prototypical sense can be depicted as follows:



4.3.24. taTTu

There are six entries for *taTTu* in CMTD. Out of them the first three entries (*taTTu*[1], *taTTu*[2] and *taTTu3* are verbs and the rest of the three are nouns. *taTTu*[1] is dealt below. The verb *taTTu*[2] has only one sense 'happen; appear' according to CMTD. The verb *taTTu*[3] is as Srilangan Tamil usage 'turn (a page)'.

***taTTu*[1]**

CMTD has listed 8 senses for *taTTu*[1]. They have been listed below with examples which are analyzed for their augment structure.

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner/reason**
A. The usages related to making one to touch something					
1	Pat lighlty (as appre-ciation, to drive fast, etc.)	1. *ndanRaaka varaindtirukkiRaay enRu kuuRi paiyanin mutukil taTTinaar.* 2. *puraiyeeRiviTTaal talaiyil taTTuvaarkaL.* 'If the food enters into the widnd pipe (by mistake), the (person's) head will be stuck lighly'	1. *avar* 'he' 2. *avarkaL*	1. – 2. – 3. *kutiraiyai* 'horse'	1. *paiyanin mutukil* 'on the back of the boy' 2. *talaiyil* 'on the head'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner/reason**
		3. *kutiraiyait taTTiyatum atu veekamaaka ooTat toTangkiyatu*			
2	Strike lightly; tap; knock	1. *katavai iru muRai taTTiviTTu uLLee nduzhaindtaan.* 'He knoked the door two times and entered inside.' 2. *aaciriyar meejaiyat taTTiyatum vakuppil amaiti eeRpaTTatu.* 'When the teacher struck the table, the class became silent.'	1. *avan* 'he' 2. *aaciriyar* 'teacher'	1. *katavvai* 'door' 2. *meejaiyai* 'table'	1. *irumuRai* 'two times' 2. –
B. Usages related to beat					
3	Beat into shape	1. *caaNi uruNTaiyaik kaiyaal taTTic cuvaril aRaindtaaL.* 'She beat the cowdung ball into shape and stuck to the wall' 2. *aaNiyait taTTi ndeeraakkik koTu.* 'Beat the ndail and straighten it'	1. *avaL* 'she' 2. *ndii* 'you'	1. *caaNi uruNTaiyaiyai* 'cowdung ball' 2. *aaNiyai* 'nail'	1. *kaiyaal* 'by hand'
C. Usages related to cause to fall					
4	Empty (rubbish)	*kuppaiyaip pakkattu viiTTil taTTiyataal takaRaaRu vandtatu.* 'A quarrel occured as the rubbish was emptied in the neighbouring house.'	–	*kuppaiyai* 'rubbish'	*pakkattu viiTTil* 'in the neighbouring house'

Sr. No.	Senses	Example	Arguments		
			Subject	**Object**	**Location/ manner/reason**
5	Knock (dust off)	*puttakangkaLaiyellaam tuuci taTTi ozhungkaaka vai.* 'Keep the book in order after knocking off the dust'	–	*puttakangka-Laiyellaam* 'all the books'; *tuuci* 'dust'	
6	Cause to stumble; trip up	*kaalait taTTi vizhacceytaan.* 'He caused him to fall by by triping his leg'	*avan* 'he'	*kaalai* 'leg'	
D. Idiomatic usages					
7	Crush (ginger, galic, etc.)	*teendiiril inji taTTipooTTaal ndanRaaka irukkum.* 'It would be good if you put crushed ginger in the tea.'	1.–	1. *inji* 'ginger'	
8	Turn down; go against; refuse'	1. *ndaan connaal taTTaamal ceyvaar.* 'If I ask he will not turn down.' 2. *avar connaal taTTa muTiyumaa*? 'If he asked me, I cannot turn down.'	1. *avar* 2. *ndaan* 'I'	1.–	1. *ndaan connaal* 'if I asked' 2. *avar connaal* 'if he asked'

CMTD classified the eight senses of *taTTu*[1] into four groups. They are listed below:

1. Usages related to making one to touch something
2. Usages related to beat
3. Usages related to cause to fall
4. Idiomatic usages

The senses 1 and 2 are grouped as the first set concerned with 'usages related to making one to touch something'. The usage includes the senses 'pat (as appreciation)' and 'strike lightly; tap; knock'. Both together can be considered as the prototypical sense. The verb *taTTu*[1]as a transitive verb takes a subject who pats or strikes lightly or taps and an object which is subjected to all these actions. The verb can take an additional argument which is the part of the object as a location in the object and which is realized as a locative phrase optionally.

The usages related to beat has only one sense i.e. is 3rd sense 'beat into shape'. The verb in this sense takes a subject who is the agent of beating and an object which is beaten into shape.

The usages related to cause to fall contains three senses 4-6. They include the senses 'empty (rubbish)', 'knock (dust off)' and cause to stumble; trip up'. The verb denoting the sense 'empty (rubbish)', takes a subject who is the agent of the action of emptying and an object which is emptied. It can optionally take an argument where the object is emptied which is realized as a locative phrase.

The idiomatic usages have two senses: crush (ginger, garlic, etc.) and 'turn down'. In the sense of 'crushing' the verb takes the subject argument who is the agent of 'crushing' and the object which is 'crushed'. In the sense of 'turning down', the verb receives the subject who is agent of turning down and the object which is turned down. The object as we see from the example is 'what being said'.

The argument structure of this verb can be put into the following frame:

taTTu^{1} [NP (Sub)+ NP-*ai* (Obj)+NP-*il* (Loc)]

When we analyze the argument structure of the verb *taTTu*^{1} in terms of its different senses and the arguments it takes, it can be stated that the different senses are realized by the object and the other arguments of the verb. The subject does not play important role in the interpretation of the different senses. The semantic structure of the prototypical sense can be depicted as follows:

$$\left(\begin{array}{l} taTTu1 \\ \text{EVENTSTR}= \left(\begin{array}{l} \text{E1:e1:process} \\ \text{E2=e2: state} \\ \text{RESTR= <?} \\ \text{HEAD= e1} \end{array}\right) \\ \text{ARGSTR}= \left(\begin{array}{l} \text{ARG1=} \boxed{1} \\ \text{ARG2=} \boxed{2} \quad \text{physobj} \\ \qquad\qquad \text{FORMAL= ENTITY} \end{array}\right) \\ \text{QALIA}= \left(\begin{array}{l} \text{default-cause-lcp} \\ \text{FORMAL=}taTTu1\text{_result (e2} \quad \boxed{2}\text{)} \\ \text{AGENTIVE=}taTTu1\text{_act (e1,} \quad \boxed{1}\text{,} \quad \boxed{2} \quad \text{)} \end{array}\right) \end{array}\right)$$

4.3.25. ndaTa

There is only one entry of *ndaTa* in CMTD. The verb has 10 senses listed in the dictionary. They are tabulated below with examples and the examples are analyzed for the argument structure of the verb.

Sr. No.	Senses	Example	Arguments	
			Subject	**Location/manner/reason**
A.	**Usages related to displacement**			
1	walk	1. *tavazhndtu koNTirunda kuzhandtai ippootutaan ndaTakkat toTangkiyirundtatu* 'The child which was crawling, started walking now only' 2. *kuunaatee, ndimirndtu ndaTa enRu appaa kuuRinaar*. 'Father said 'Don't bend, walk with straight posture.' 3. *kaalil vishak kaTi paTTavar ndaTakkak kuuTaatu.* 'The person who had a poisonous bite should not walk.' 4. *eppootum un kuRikkooLai ndooki ndaTa.* 'Always move towards your goal'	1. *tavazhndtu koNTirunda kuzhandtai* 'the crawling child' 2. *ndii* 'you' 3. *kaalil vishak kaTi paTTavar* 'the person who had a poisonous bite' 4. *ndii* 'you'	1. *toTangku* 'started' 2. *kuunaatee, ndimirndtu* 3. – 4. *eppootum un kuRikkooLai ndooki* 'towards your aim'
2	Walk (in space)	*viNveLiyil atika ndeeram ndaTandta peN enRa caatanaaiyaik inditiya vamcaaveLiyaic ceerndta cunitaa villiyams ndikalzhttinaar.* 'Sunita Williams who belongs to the Indian race established the achievement as a woman who walked for long time in the speace.'	1. *cunitaa villiyams* 'Sunita Williams'; peN 'woman'	*viNveLiyil atika ndeeram* 'for long time in the speace'
B.	**Usages related to happen**			
3	Take place (as an event, good thing, or bad thing); happen	1. *ippaTi oru vipattu ndaTakkum enRu yaarum etirpaarkkavillai*. 'Nobody expected that such an accident would happen.'	1. *oru vipattu* 'an accident' 2. *ndaTandatu* 'what happened' 3. *aRputam* 'miracle'	1. *ippaTi* 'in this way' 2. – 3. *aaTTattin kaTaici pandtiltaan* 'at the last ball of the play';

Sr. No.	Senses	Example	Arguments	
			Subject	Location/manner/reason
		2.*ndaTandatu ndaTanduviTTatu*; *inimeel varundtip payan illai'* 'What happened is happened; there is no use for regretting it' 3.*aaTTattin kaTaici pandtiltaan aRputam ndaTandtatu*. '*A miracle happened at the last ball of the play'* 4.*ndaTandtaic connaal avaL ndampuvaaLaa enRa candteekam eeRpaTTatu*. 'There occurred a doubt whether she would believe when we tell her what happened' 5.*yaaraavatu oruvraukku ndallatu ndatandtaal caritaan* 'It will be alright, if a good thing happens to any one' 6. *ulakil veeRu engkum ippaTippaTTa koTumaikaL ndaTappatillai* 'No where on the earth such cruelty will happen.' 7. *cinna cinna caNTaikaL ellooruTaiya viiTTilum ndaTappatutaanee?* 'Petty quarrels occur in houses of all persons.' 8. *caRRu ndeerattil periya kalavarmee ndaTandu muTinduviTTatu* 'Within a short time a big agitation occurred'	4. – 5. *ndallatu* 'good thing' 6. *ippaTippaTTa koTumaikaL* 'such a cruvelty' 7. *cinna cinna caNTaikaL* 'petty quarrels' 8. *periya kalavarm* 'big agitation' 9. *kalavaram* 'agitation' 10.*tiruTTukaL* 'theafts' 11.*etuvum* 'nothing'	4. – 5. *yaaraavatu oruvarukku* 'to one' 6. *ulakil veeRu engkum* 'any where on the earth' 7. *ellooruTaiya viiTTilum* 'in the houses of all persons' 8. *caRRu ndeerattil* 'within short time' 9. *angku* 'there' 10.*indta pakutiyil* 'in this part' *aTikkaTi* 'often'

Sr. No.	Senses	Example	Arguments	
			Subject	Location/manner/reason
		9. *angku ndaTandta kalavarattil iraNTu kuzhuvinarukkumee ndalla kaayam*. 'The two groups had severe injury in the agitation that occurred there.' 10.*indta pakutiyil tiru-TTukaL aTikkaTi nda-TakkinRana*. 'Thefts offen occur in this part." 11.*enpaiyankaL illaamal etuvum ndaTakkaatu*. 'Nothing will happen without my sons'		
4	Happen (as something to some-thing or somebody)	1. *iraNTu peerum peeci-kkoLvatillaiyee. ungkaLukkiTaiyee enna ndaTandtatu*? 'You two do not talk to each other. What happened between you? 2. *un kuTumpattiRku ma-TTum een ippaTiyell-aaamndaTakka veeNTum*? 'Why such things happen to your house only?' 3.*kaN vizhittup paartta periyavaar 'enakku enna ndaTandtatu?' enRu engkaLiTam keeTTaar*. 'The elderly person opened his eyes and asked us 'What had happened to me?'' 4. '*aaNTavaa! yaarukkum tiingku ndTakkaamal ndii taan paarttukkoLLa veeNTum' enRu veeNTindaar*.	1. *enna* 'what' 2. *ippaTiyellaaam* 'like this' 3. *enna* 'what' 4. *tiingku* 'bad things'	1. *ungkaLukkiTaiyee* 'between you' 2. *un kuTumpattiRku maTTum* 'to your family only' 3. *enakku* 'to me' 4. *yaarukkum* 'no one'

Sr. No.	Senses	Example	Arguments	
			Subject	**Location/manner/reason**
		He requested 'Oh God! Look after all so that nothing bad happens to them.'		
5	Function (as family, institution, etc.); run; go on	1. *muuttavan campaLattil taan kuTumpam nda-TakkiRatu.* 'The family is functioning on the elder son's earning' 2. *miyaanmaaril vekukaalamaaka raaNuva aaTcitaan ndaTakkiRatu.* 'Military rule is going on in Miyanmar for a longer period'. 3. *mutalaaLi irukkum varai aluvalakam ozhungkakaaka ndaTakkum* 'The office will function well till the owner is there' 4. *vakuppu ndaTandtu koNTirukkum pootu tayavuceytu yaarum uLLee varaatiirkaL* 'Please, nobody come inside while the class is going on' 5. *indta ciRiya viiTTil taan engkaL kuTitta-nam ndaTakkiRatu.* 'Our domestic life is going on in this small house only.'	1. *kuTumpam* 'family' 2. *raaNuva aaTcitaan* 'military rule only' 3. *aluvalakam* 'office' 4. *vakuppu* 'class' 5. *engkaL kuTittanam* 'our family'	1. *muuttavan campaLattil taan* 'on the earning of elder son only' 2. *miyaanmaaril* 'in Miyanmar'; vekukaalamaaka 'for long time' 3. *mutalaaLi irukkum varai* 'till the owner is there'; *Ozhungkaaka* 'well' 4. –
6	Run (as a drama, circus, film, etc.)	1. *engkaLuuril carkas ndaTakkiRatu.* 'Cicus is running in our village'	1.*carkas* 'cicus' 2.*enna paTam* 'what cinema'	1. *engkaLuuril* 'in our village' 2. *indta tiraiyarangkil* 'this cinema theatre'

Sr. No.	Senses	Example	Arguments	
			Subject	Location/manner/reason
		2.*indta tirayarangkil enna paTam ndaTakkiRatu?* 'What cinema is running in this theatre'		
7	Be held; be performed; be done	1.*makanin kalyaaNa veelaikaL ndallapaTiyaaka ndTakka veeNTum.* 'My son's marriage activities should be performed well.' 2. *iraNTu ndaaTukaLiTaiyee camaataanap peeccu vaarttaikaL ndaTandtuvarukinRana.* 'The peace talks are going on between the two countries' 3. *ndandampaakkattil accukkalai kaNkaaTci ndaTakkiRatu.* 'The exhibition of printing art is going on in Nandanpakkam.' 4. *appaavin takanam ndaTandtu muTinda piRakutaan aNNan vandtuceerndtaan.* 'Elder brother reached only after the father's cremation.' 5. *enRkaL ndirvaakattil ndaTanda muRaikeeTukaL ampalamaayina* 'The irregularities in our administration came to light.' 6.*maruttuvat tuRaiyil ndiRaiya aaraayccikaaaL ndaTandtu varukin Rana*	1.*makanin kalyaaNa veelaikaL* 'son's marriage preparation' 2. *camaataanap peeccu vaarttaikaL* 'peace talks' 3. *accukkalai kaNkaaTci* 'printing art exhibition' 4. *appaavin takanam* 'father's cremation' 5. *muRaikeeTukaL* 'irregularities' 6. *ndiRaiya aaraayccikaaaL* 'many researches' 7.*indta tiraippaTattaip poonRa kalaimuyaRcikaL* 'the artful efforts like this movie' 8. *ciRuvarkaLukkaana ndiiccal pooTTi* 'the swimming competition for the children' 9. *caTTacapait teertal* 'assembly election'	1.*ndallapaTiyaaka* 'well' 2. *iraNTu ndaaTukaLiTaiyee* 'between two countries' 3. *ndandam paakkattil* 'in Nandanampakkam' 4. – 5. *enRkaL ndirvaakattil* 'in our administration' 6. *maruttuvat tuRaiyil* 'in the medical department' 7. *paravalaaka* 'widely' 8. – 9. *immaata iRutiyil* 'by the end of this month'

Sr. No.	Senses	Example	Arguments	
			Subject	Location/manner/reason
		'Many researches are going on in the medical department.' 7. *indta tiraippaTattaip poonRa kalaimuyaRcikaL paravalaaka ndaTakkaveeNTum* 'Many artful efforts like this movie should be performed widely' 8. *ciRuvarkaLukkaana ndiiccal pooTTi ndaTakkiRatu.* 'The swimming competition for children is going on' 9. *caTTacapait teertal immaata iRutyil ndaTakkum enRu teertal aaNaiyam terivittuLLatu.* 'The election commission has informed that the assembly election will be held in the end of this month'		
C. Usages related to following regulations				
8	Behave; conduct oneself	1. *ndaan colvataik keeTTu ndaTappataaka irundaal ingku iru.* 'Be here if you behave as I told you.'	*ndii* 'you'	*ndaan colvataik keeTTu* 'by listening to what I said'
D. Idiomatic usages				
9	Run (as age)	1. *en makaLukku eTTu muTindtu onpatu ndTakkiRatu.* 'My daughter is nine years old after completing eight'	1. *onpatu* 'age of nine' 2. *muunRu vayatu* 'three years'	1. *en makaLukku* 'to my daughter'; *eTTu muTindtu* 'by completing eight' 2. *enakku* 'to me'

Sr. No.	Senses	Example	Arguments	
			Subject	Location/manner/reason
		2. *enkku muunRu vayatu ndTakkum pootu kiizhee vizhundtu aTipaTTataal eeRpaTTa tazhumpu.* 'The scar formed from the wound by slipping down while I was three years old.'		
10	Succeed	1. *unnuTaiya veelaiyellaam enniTam ndaTakkaatu.* 'Your tricks with me will not succeed.' 2. *ndaanum avanai maaRRuvataRku evvaLavoo muyaRci ceytu paarttuviTTeen. aanaal atu ndTakkavillai.* 'I tried hard to change him, but could not succeed.	1. *unnuTaiya veelaiyellaam* 'your tricks' 2. *atu* 'that'	1. *enniTam* 'with me' 2. –

As we can see from the tables it can be inferred that CMTD groups the ten senses into three sets. They are listed below:

1. Usages related to displacement
2. Usages related to happen
3. Usages related to following regulations

The senses 'walk' and 'walk (in space)' are incorporated in the first set of senses. The first sense is the prototypical sense of denoting 'move at a regular pace by lifting and setting down each foot in turn, never having both feet off the ground at once.' (This is the way 'walk' is defined.) The verb *ndaTa* prototypically is an intransitive verb which takes a subject as the agent of the action *ndaTa* 'walk'. As an intransitive verb it does not receive an object. So the interpretation of the different senses is based on the semantic features of subject as well as other arguments or co-occurring words especially the location. For example the location *viNveLi* 'space' will account for the extension of prototypical waking into 'walking in space.' This situation can be represented as follows:

ndaTa [NP	+ NP-il -------]	
+Sujbect	+ Locaton	
+Semantic featurss	+ Semantic features	

Usages related to happen include five senses i.e. from 3rd to 7th sense. They include senses such as 'take place; happen', 'happen (as an event, good thing, bad thing, etc.', 'happen (as something to something or somebody)', 'function (as family, institution, etc.); run; go on', 'run (as a drama, circus, film, etc.)', and 'be held; be performed; be done'. The third sense and seventh sense appears to cover a wide range of usages. CMTD has given eleven examples to exemplify the third sense and nine examples to exemplify the seventh sense. The interpretation of different senses in this second set of usages is promoted mainly by the semantic feature of the subject. The other co-occurring words may also participate in the different sense interpretation of this verb.

Usages related to following regulations include only one sense i.e. 'behave; conduct one.' The idiomatic usages consist of 'run (as age)' and 'succeed'.

The extension of usages related to displacement into usages related to happen and usages related to following regulations is very interesting one. English 'walk' does not show such extension of senses from its prototypical sense.

For a unergative verb such as *ndaTa* 'walk', the projection to subject follows from the qualia structure shown below:

$$\begin{bmatrix} ndaTa \\ \text{EVENTSTR} = [\text{E1}=\text{e1 process}] \\ \text{QUALIA} = \begin{bmatrix} \text{AGENTIVE} = ndaTa_\text{act (e1,x)} \\ \ldots \end{bmatrix} \end{bmatrix}$$

In addition to the mapping itself, the qualia of a lexical expression must be 'saturated' by the syntax. That is, the variable in the qualia structure must be fully interpreted in the resulting syntactic structure.

QUALIA SATURATION: A qualia structure is saturated only if all the arguments in the qualia are covered.

Chapter 5

Conclusion

There is an urgent need to address the problem of the unlimited range of expansion of verbal meanings as attested in dictionaries. If one look at a well compiled dictionary like CMTD, one can understand that the meanings of certain verbs expands without limitation and predictability. One can very well understand that the senses are listed under a verb by the lexicographer just because of the familiarity about the meanings of the verbs as a native speaker. There is no doubt that the native speakers of Tamil understand each and every sense of the verbs by context. CMTD has successfully accounted the semantic extension and changes of these verbs systematically. The dictionary tried to give the equivalents of these senses in English too. This is not the end of the story. There is a need to explain how the expansion or change of meanings occurs. The following questions may definitely arise in the mind of semanticists: What is the cognitive process involved in this kind of meaning extension or change? Is there any way of interpreting the meaning of a verb as a generative process? These questions have been elaborately discussed in the previous two chapters.

The role of the semantic features of the arguments of a verb for the interpretation of its various senses is crystal clear. One can infer from the above chapters that both cognitive semantic approach and generative lexicon approach have their own limitations. Both approaches need to be used to explain the semantic extension and semantic change of meanings of the verbs. Whereas Cognitive Semantics proposes metaphor as the main instrument for semantic extension, it has been seen that metaphor alone cannot account for physical extended meanings. Another problem for this approach lies in the influence that verb arguments can have on the overall meaning of the sentence. This influence is not taken into account. On the other hand, although Pustejovsky's model does look at the compositionality of meaning, this model is unable to explain how metaphorical meanings are conveyed.

Therefore, it has been argued that in all different meanings, the interaction between the verb and its arguments is important, but to different degrees of compositionality. That is to say, in some meanings, the role played by the arguments of the verb is crucial. In some other meanings, it is the verb that governs the choice of arguments and meaning. These cases are predictable polysemous meanings. Finally, there is a third class of meanings, where interpretation is not predictable by means of the choice of arguments. These are semantic changes.

Based on data from Tamil language, it has been seen that what it is called here semantic changes are to be considered language specific cases. The possibility of mapping between different conceptual domains is what is regarded as cross-linguistic phenomena.

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